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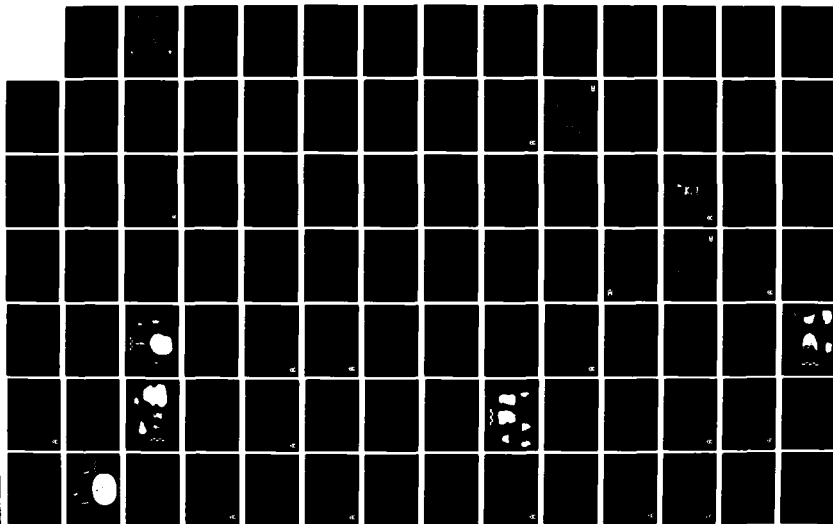
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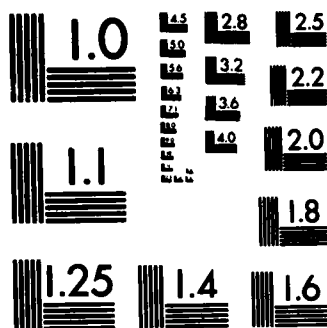
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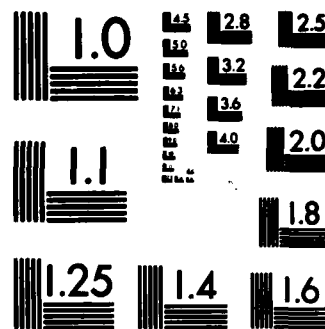
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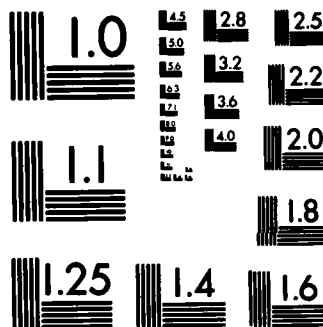




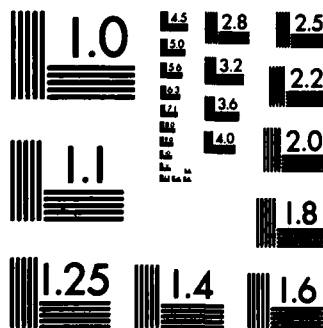
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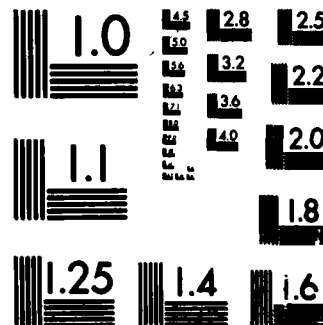
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The Archaeology and History of Lake Ray Roberts

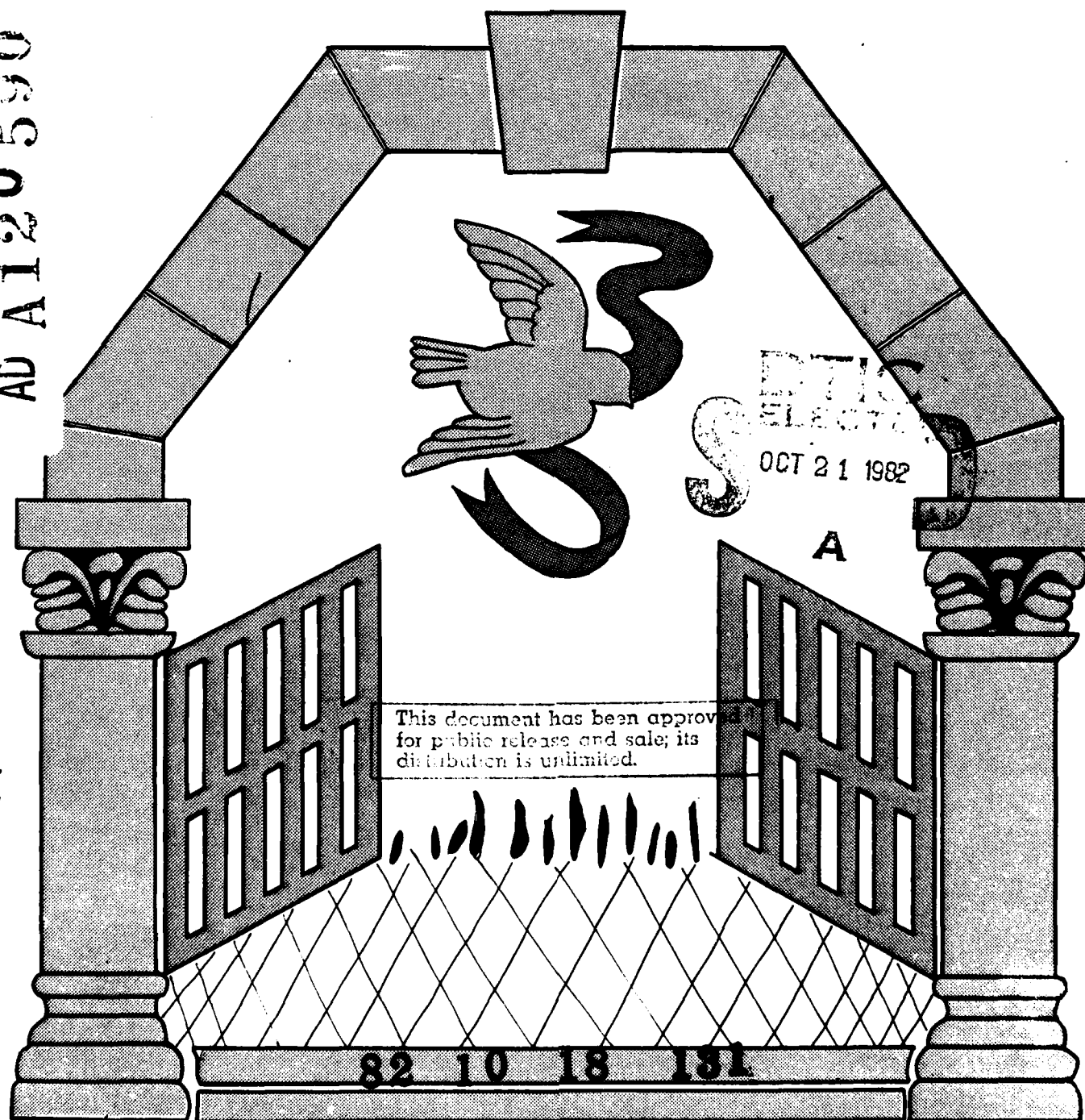
VOLUME 2

CONSTRUCTION AREA

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**ARCHAEOLOGY AND HISTORY OF
LAKE RAY ROBERTS
VOLUME 2
CONSTRUCTION AREA TESTING**

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ABSTRACT

Site testing within the Lake Ray Roberts dam site construction area involved an integrated, two-stage program of auger testing, surface collecting, test pit excavation, and historical research for a total of 60 sites in northern Denton County Texas, including 15 prehistoric sites, 22 historic sites without standing structures, 16 historic sites with standing structures, and 7 sites with both historic and prehistoric components. Based on this work, the earliest human occupation occurred during the Middle Archaic period, and aboriginal occupation reached a peak during the Late Archaic. White settlement began during the 1840s and reached a peak following 1875. Based on these results, it is recommended that 31 sites be nominated for inclusion on the National Register of Historic Places, including 8 prehistoric sites, 13 historic sites, and 10 standing structure sites.

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MANAGEMENT SUMMARY

PURPOSE OF INVESTIGATION

In the winter of 1980, Environment Consultants, Inc. (ECI) was selected to conduct the initial phase of testing of cultural resource sites located within the dam site construction area at Lake Ray Roberts (formerly Aubrey Reservoir) for the Fort Worth District, U.S. Army Corps of Engineers. The study area is located in north-central Texas in northern Denton County. The contract modification for Phase 1 testing became effective on October 27, 1980. In the following summer of 1981, ECI was chosen to conduct additional testing at selected sites based on the results of the initial testing. This contract modification became effective on August 21, 1981.

The purpose of the testing was to evaluate the cultural resources that are present within the project area in regard to their eligibility for inclusion on the National Register of Historic Places. Cultural resources include historic and prehistoric archaeological sites as well as historic standing architectural and engineering structures. Information on the age, function, and preservation of these resources was used in developing a set of recommendations about site significance.

This study was done in accordance with Corps of Engineers guidelines for implementing Federal legislation concerned with environmental protection and historic preservation. These include the National Environmental Policy Act of 1969, the National Historic Preservation Act of 1966 (as amended), the Procedures for the Protection of Historic and Cultural Properties developed by the Advisory Council on Historic Preservation (36 CFR 800), and others.

CONSTRAINTS ON THE INVESTIGATION

In general, field conditions were favorable; however, several sites were placed off-limits to the testing crews by landowners who did not wish any subsurface disturbance to their land. However, all of these sites either are recently occupied standing farmhouse complexes, or eroded historic artifact scatters. All of the prehistoric sites within the construction area were tested. It also should be noted that the removal and/or deterioration of architectural structures hampered the evaluation of historic buildings and archaeological sites.

INVESTIGATIVE RESULTS

A total of 60 cultural resources sites were examined during both phases of testing within the Lake Ray Roberts construction area. These include a total of 15 sites with prehistoric occupations, 29 historical archaeological sites, and 16 historic archaeological sites with standing structures. The ages of these resources range from the Archaic period (4000 B.C. - A.D. 800) through the Neo-American period (A.D. 800 - A.D. 1600), and began again with historic European settlement around A.D. 1840. The most intense historic occupation was around the turn of the century.

The historic standing structures provide a detailed understanding of changes in folk architecture in this rural region of north-central Texas. The historic archaeological sites emphasize the impact that structure recycling has on site evaluation, and the prehistoric sites document the gradual adaptation of hunting and gathering groups over time.

SIGNIFICANCE OF THE RESULTS

It is recommended that 26 of the cultural resources tested within the construction have rendered the information they contain through the recording and testing processes and should be determined ineligible for further study. Thirty-one of the sites, containing 8 prehistoric and 13 historic components, and including 10 historic standing structures, are recommended to be eligible for inclusion on the National Register of Historic Places.

The significance of these resources is discussed in detail in Chapter V: Recommendations. Many of the sites have yielded their major importance through being located, recorded, and tested. Further study of these fragile resources is not warranted because they would not be able to contribute reasonably to understanding the research problems relevant to the area. Other sites, however, will provide information which previously has not been derived on the development of architecture in a rural area of Texas. The prehistoric archaeological sites will permit the understanding of aboriginal man's use of this agriculturally marginal area of north-central Texas.

IMPACT POTENTIAL

The project has tested cultural resources which will be impacted by the construction of the dam and associated borrow pits. However, many of these resources are not recommended for further work. Of the sites that warrant further work, most will be impacted directly by the construction of the dam, and their loss needs to be mitigated prior to beginning construction.

RECOMMENDATIONS

It is recommended that 31 cultural resources are eligible for inclusion on the National Register of Historic Places and warrant further work to mitigate their loss.

ACKNOWLEDGMENTS

Numerous people contributed to the completion of this report. A great deal of aid was rendered by various personnel of the Fort Worth District, U.S. Army Corps of Engineers, including Ms. Su Hazen of the Environmental Resources Section, as well as Ms. Carolyn Neal and Mr. Gary Day of the Real Estate Section.

It would be difficult to overestimate the contributions that have been made to the success of the project by local informants and landowners. These people always were ready to lend a helping hand, and our work would have been far less pleasant without them. We are very grateful for the cooperation and assistance given to us by so many people within the project area.

Thanks go to many regional researchers who have graciously provided their personal knowledge of cultural resources to be used in this report. In particular, we wish to thank Drs. Terry Jordan, Dale Odom, and Bullitt Lowrey of North Texas State University for their patience with our questions and their assistance. Members of the Cooke, Denton, and Grayson County Historical Societies assisted the field teams in many ways. Mr. Olin McCormick and Dr. Scott Hays of the Institute of Applied Science at North Texas State University shared their knowledge of north Texas archaeology with the authors.

This report is the result of the work of a variety of people at Environment Consultants, Inc. over a period of time. Maynard Cliff served as Project Director, with Leonard LaVardera acting as Field Director during the first phase of testing and James Garber during the second phase. The field crew included Louis Sardelli, Ron Holan, and Marty Northern as crew chiefs at various times, and crew members included Scott Geister, Floyd Kent, Mary Beth Dowd, Lesbia Elizondo Northern, Lee Widmer, Margaret Roesner, Fred Wilbur, Frank Winchell, Cristi Winchell, Jim Kules, and Susan Smith. Karen Hahn acted as Laboratory Director, with a staff composed of Carol Gallant, Gary Rutenberg, and Jim Ingraham. The historical fieldwork was directed by LeAnne Baird with the assistance of Kathy Fimple, Robert McCullers, Kathy Morgan, Jeannie Franke, Jim Renner, and Kate Singleton. Computer runs on census data were made by Gary Rutenberg using the computer facilities of Southern Methodist University.

Administrative details were handled by Hugh Ward, Leslie Orlowski, Linda Wilmore, and Sue Donahue in Dallas.

The report coordination and completion was managed by James Garber, Maynard Cliff, Allen Faust, Jeyne Bennett, and S. Alan Skinner. The draft report revision was managed by Kathy Morgan. The majority of the chapters have multiple authors. James Garber, Vern Scarborough, and Maynard Cliff wrote the prehistoric testing results; while Garber, Scarborough, and Karen Hahn wrote the historic testing results. LeAnne Baird, Kate Singleton, Jim Renner, and Kathy Fimple wrote sections on history, while architectural structures were evaluated by LeAnne Baird. The methodology was written by James Garber, Maynard Cliff, and LeAnne Baird. Cliff, Baird, and Skinner prepared the Recommendations, while Cliff wrote the Management Summary. Editing was done by Skinner and Allen Faust. Sue Donahue and Kathy Morgan prepared the line drawings. Various portions of the manuscript were initially typed by Linda Holder, Chris Corgill, and Tammy Brown, while Word Processors Louanne Ward and Marian Marx produced the final manuscript.

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I. INTRODUCTION

Project Background

Lake Ray Roberts (formerly designated Aubrey Lake) is a proposed reservoir which is designed to provide flood control, water supply, and recreation benefits to the area of north-central Texas (Figure 1-1). The reservoir, as designed, will have a conservation pool of 118.8 km² (29,350 surface ac), and total surveyed land includes more than 184 km² (45,500 ac) in Denton, Grayson and Cooke counties, Texas. The proposed dam site is to be located 0.4 km (0.25 mi) south of the junction of the Elm Fork of the Trinity River and Isle du Bois Creek (pronounced ZILL-A-BOY) in Denton County (Figure 1-2). Maximum flooding will inundate the floodplains and large portions of the lower terraces of these streams as well as several tributaries. The planned top of the flood control pool will be at elevation 195.2 m (640.4 ft) mean sea level (MSL), while the planned top of the conservation pool will be at 192.8 m (632 ft) MSL.

The construction and borrow pit areas for the Lake Ray Roberts dam will cover approximately 30 km² (7,435 ac) in Denton County. A 7-week archaeological survey of most of this area was carried out from August 26 to October 15, 1980 by Environment Consultants, Inc. (ECI) under contract with the U.S. Army Corps of Engineers (USCOE), Fort Worth District. For more details of the survey, please refer to the Introduction, Volume I of this report series.

As a result of the initial survey, 70 archaeological and architectural sites were located and recorded. These included 43 archaeological sites and 27 architectural sites. Of these, 35 archaeological sites and 8 architectural sites were recommended for limited initial testing to evaluate their potential for more in-depth testing at some later time. Because of problems of accessibility and because the sites were all on private land, only 32 of the recommended archaeological sites were tested during this initial period.

A portion of this initial testing was carried out by ECI under a contract modification with the Corps of Engineers during a 1-week period at the end of November 1980. Following this, the field procedure was modified and the bulk of the work was accomplished during a 5-week period in January and the first part of February 1981. A draft working report detailing the results of this initial testing was submitted to the Corps of Engineers at the end of March 1981.

Based upon the results of initial testing, an additional 400 field man-days was contracted to ECI by the Corps of Engineers under a contract modification in August 1981. This work was to involve more detailed testing at a number of prehistoric and historic sites and completion of testing at those sites for which access could not be obtained during the initial phase of testing. The work also was to include testing of 25 newly recorded sites within the portions of the construction area for which rights-of-entry had been obtained only in July and August 1981. Of these new sites, only 18 could be tested, because of the refusal on the part of owners to allow any subsurface work at the remaining 7 sites. This work also included a large amount of new regional historical research, evaluations of the potential of all sites for site specific research, and more in-depth deed research at 12 sites. Therefore, this report presents testing results of 60 cultural resource sites with the Lake Ray Roberts construction and borrow pit areas. It also presents recommendations derived from both the initial and follow-up testing in the Lake Ray Roberts construction area.

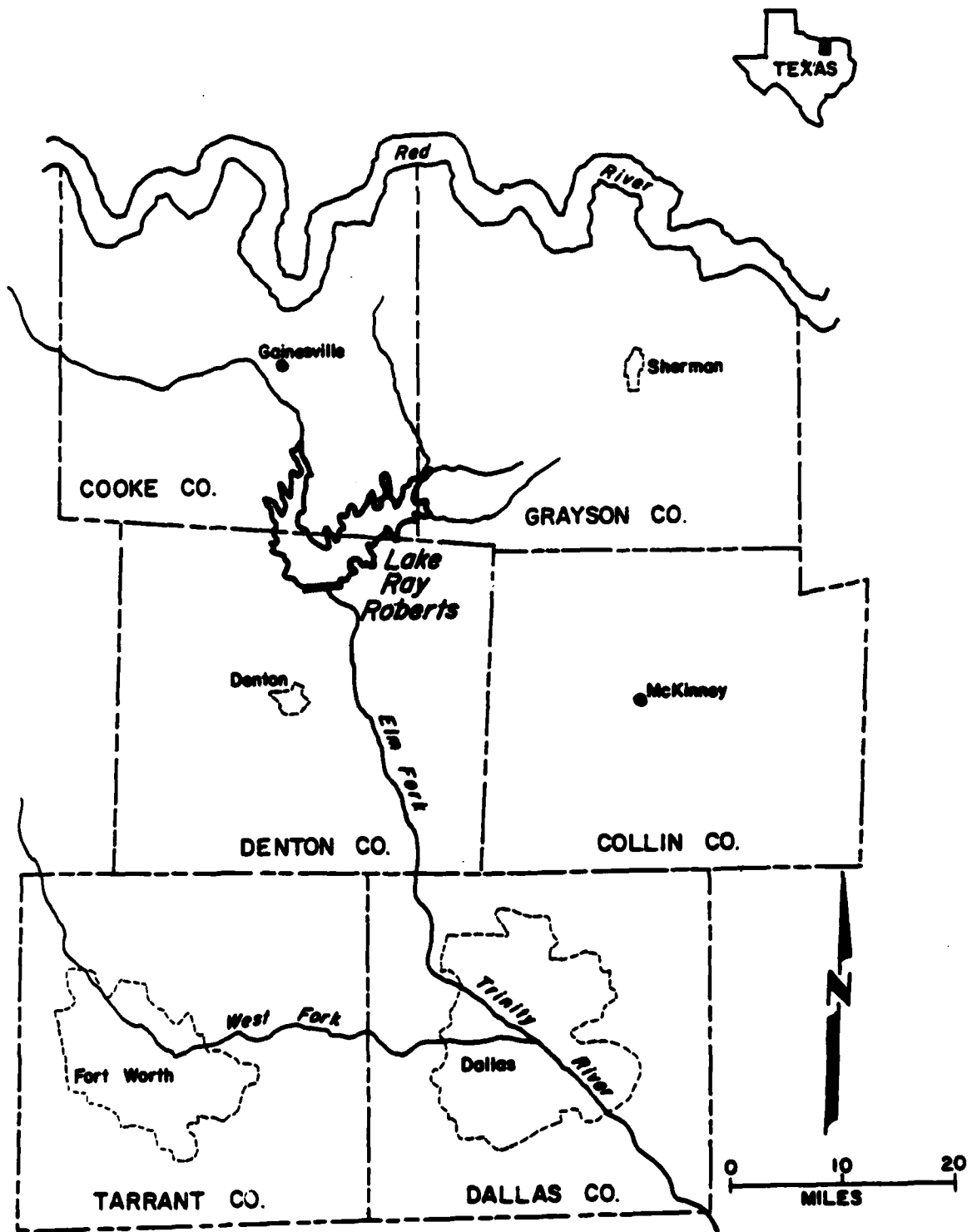
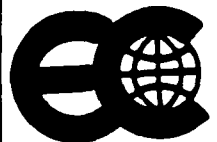


Figure 1-1. Location of Lake Ray Roberts project area and surrounding six county area in north-central Texas.



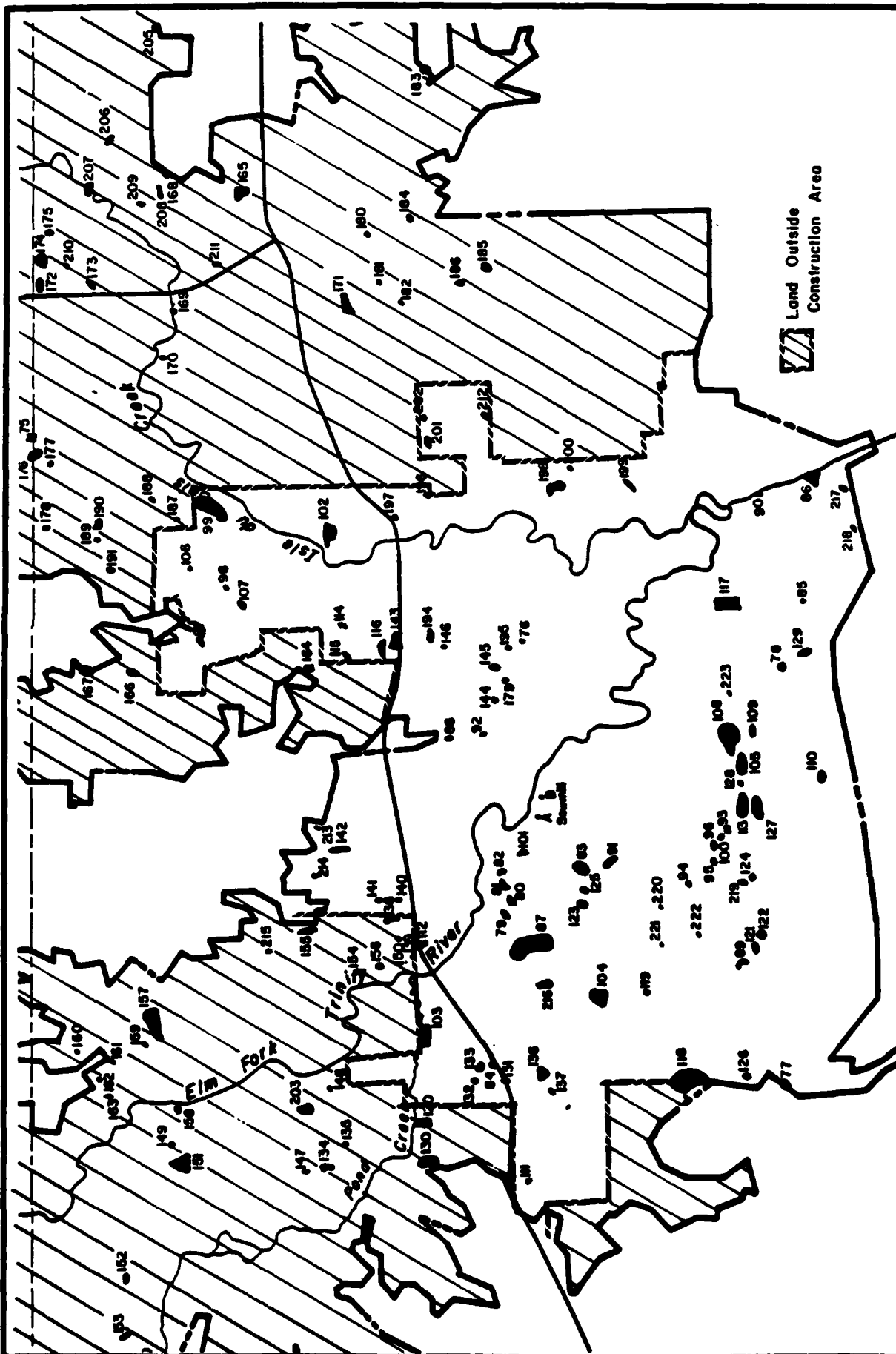


Figure 1-2. Southern portion of proposed Lake Ray Roberts, showing locations of cultural resource sites in the basic construction area.



Environment

The major portion of the proposed Lake Ray Roberts impoundment is located along the upper portion of the Elm Fork of the Trinity River and along Isle du Bois Creek in Denton, Cooke and Grayson counties in north-central Texas. North-central Texas, in general, lies within the Gulf Coastal Plains physiographic province, and most of the study area (Denton and Cooke counties) is located within the Grand Prairie subdivision, which consists of a gently rolling prairie with occasional ridges and knolls. The remaining portion of the area is located within the Eastern Cross Timbers subdivision, characterized by rugged and hilly topography by comparison (USCOE 1973; Skinner et al. 1982).

The two main drainages within the area are the Elm Fork of the Trinity River, which is located on the western side of the area and flows generally southeast to south, and Isle du Bois Creek located in the eastern side of the area flowing southwesterly. Ground water resources can be found in various wells throughout the area, and is primarily obtained from aquifers of the Trinity Sands Group, the Woodbine Sands Formation, and the alluvial floodplain and terrace deposits within the watershed (USCOE 1973).

Within Denton County, a major portion of the soils along the Elm Fork consists of a moderately alkaline, very dark, greyish brown, Frio silty clay on the floodplains, to a slightly acid, brown, Navo clay loam along the drainages and low hills. Along Isle du Bois Creek, the soils in the floodplain are a mildly alkaline, dark grey, Kaufman clay with a slight to medium acid, brown, Callisburg fine sandy loam located on the slopes and valley fills of the uplands (Ford and Pauls 1980).

The soils in the construction area along the floodplains of the Elm Fork and Isle du Bois Creek have a low potential for crop production because of the hazard of flooding during the growing season, but they have a medium to high potential for tame pasture (i.e., bermuda grass) and rangeland, as do the upland soils (Ford and Pauls 1980).

The Elm Fork watershed is situated in an area characterized by moderate to mild winters and comparatively long, hot summers. Even though the winters are mild, they often are accompanied by sharp drops in temperature and strong, gusty, northern winds accompanying brief cold fronts. Precipitation in the form of rain averages 88.35 cm (34.8 in) and snow averages 6.17 cm (2.4 in) annually, but is fairly evenly distributed throughout the year with May being the wettest month and January and midsummer, the driest periods (Ford and Pauls 1980).

The Oak-Hickory Forest and Blackland Prairie comprise the dominant vegetation types in the study area. A large portion of the western part of the area, including the Elm Fork and part of Isle du Bois Creek, supports an oak-hickory forest in which the dominants are post oak (Quercus stellata), blackjack oak (Q. marilandica), Texas hickory (Carya texana), and winged elm (Ulmus alata) (USCOE 1973). Tall grasses predominate in the remaining portion of the area, including various species of weedy annual and perennial grasses (USCOE 1973).

The large fauna of the Lake Ray Roberts area is a typical assemblage of the Prairie Parkland (Bailey 1976). Main game species include grey fox (Urocyon cinereoargenteus), fox squirrel (Sciurus niger), white-tailed deer (Odocoileus virginianus), bob-white (Colinus virginianus), and mourning dove (Zenaidura macroura), along with 26 other species of mammals, plus 36 resident bird species and 47 migratory species (USCOE 1973).

Aquatic life presently found in the Elm Fork of the Trinity and Isle du Bois Creek and their tributaries consists of fish communities dominated by shiners and minnows (Cyprinidae), although some commercial and sport species also are found. At least 33 species of reptiles including turtles, skinks, lizards, and snakes, and 11 species of amphibians, plus ubiquitous wetland species also reside throughout the area (USCOE 1973).

Geology

The bedrock within the construction area consists of various units of the Gulf and Comanche Series of the Cretaceous System (Table 1-1).

Table 1-1.
Units of the Cretaceous System present
in the study area

Series	Group	Formation
Gulf		Woodbine Sandstone
Comanche	Washita	Grayson Marl Main Street Limestone Pawpaw Sandstone Weno Shale Denton Shale Fort Worth Limestone

These units outcrop in a series of roughly north-south trending bands with the Woodbine Sandstone on the east and the Fort Worth Limestone on the west. With the exception of the Woodbine Sandstone, the Quarry Limestone Member of the Weno Shale, and the Main Street Limestone, all of the units tend to be poorly consolidated and erode rapidly by mechanical and chemical processes.

The Cretaceous bedrock in this area is important because it is a source of sediment for the Quaternary units that overlie it, but more importantly because of the influence it has exerted over the shape and size of the river valley. This provides at least a partial explanation of why the Trinity River valley tends to be asymmetrical with a steep eastern side supported by the more resistant Woodbine and Main Street Formations, and a gently sloping western side underlain by the softer Pawpaw, Weno, and Denton Formations.

In addition to the Cretaceous formations, the study area contains several Quaternary deposits. The youngest of these are the Holocene floodplain deposits of varying composition and thickness. The older of these units are Pleistocene in age and form a series of terraces above the present floodplain.

In the study area, there are two or, possibly, three Quaternary terraces. The youngest terrace, T0, is Holocene in age, approximately 9.1 m (30 ft) thick, and occurs at

elevations between 167 and 177 m above sea level (Figure 1-3). Above the T0 terrace, which is the present floodplain, is the T1 terrace. This terrace is Pleistocene in age and occurs between elevations of 177 to 191 m. There is some evidence which suggests that there is a third, or T2, terrace present in a few areas in the study area at elevations above 191 m (625 ft). Most of the preserved deposits of the T1 and T2 terraces occur in the western half and northeastern corner of the area along the western sides of the stream valleys.

It is difficult to assign ages to the terrace deposits based on stratigraphic and topographic considerations alone because of the local source of much of the terrace material, the lack of any cross-cutting relationships and index fossils, and the destructive effects of modern erosion, slump, and agriculture. Because of this, it has been necessary to assign ages based on reconstructions of the climate and sea level for the latter part of the Quaternary (Skinner et al. 1982).

Based on general principles of terrace formation and the paleo-sea level and climatic information provided by Flint (1971:326-28), Shafer (1977), and Bryant and Shafer (1977), the following dates are proposed for the terraces in the study area:

- T0: present to 3000 years B.P.
- T1: 6500 to 12,000 years B.P.
- T2: 20,000 (?) to 45,000 (?) years B.P.

The dates of the T2 terrace are the most difficult to establish with any degree of reliability. The terrace is certainly older than the Late Wisconsin ice advance and the radical drop in sea level it caused, but it could have been formed in response to any of the interstadials of the Middle Wisconsin Stage (25,000 to 55,000 years B.P.).

The dates of the T1 terrace are much easier to determine with some degree of certainty. As the ice sheets of the Late Wisconsin glaciation began to withdraw, sea level began to rise, drowning the mouth of the paleo-Trinity system, reducing the river's grade by roughly 100 m or more, and causing increased deposition. The effects of rising sea level would have been offset somewhat by the effects of an increasingly warm, dry climate which would have promoted high run-off rates and destructive flooding. Nonetheless, it would seem reasonable to suppose that aggradation would have started shortly after the beginning of the widespread glacial retreat. Deposition would have continued as long as rising sea level could overcome the effects of the increasingly dry climate and the rate of deposition of the paleo-Trinity system. It seems likely that deposition ceased around 7000 to 6500 years B.P. when the rate of sea level rise dropped dramatically (Flint 1971:326-28). Some support for this date does exist in the record of increasingly frequent and severe flooding in the Rio Grande and Pecos River valleys between 7000 and 3000 years B.P., as reported by Patton (1977).

After the period of destructive flooding that marked the end of T1 deposition, and which probably helped establish the entrenched meander pattern of the Trinity system in the Lake Ray Roberts area, the climate in Texas seems to have stabilized (Bryant and Shafer 1977:18). This stabilization would have allowed the formation of the T0 terrace (the present river floodplain) by erosion of the surrounding uplands and the deposition of material during floods. Deposition is still continuing on this terrace, although the nature and amount of the deposits is controlled more strongly by agriculture and other human activity than by natural forces.

Based on field examination (Skinner et al. 1982), it is clear that the Pleistocene terrace deposits in the construction area were laid down by braided stream systems. The

stream channels do not appear to have been very large and their orientation seems to be variable. Much of the sediment that the streams carried was of local origin (pebbles from the Main Street, Weno, and Pawpaw, sand from the Woodbine and Pawpaw, and clay from shaley members of the Washita Group), with little or no material from distant sources. All of these factors indicate that the sediments in the terraces in the study area were deposited by relatively small, low energy, meandering streams that periodically flooded. The streams of T2 time (20,000+ B.P.) seem to have had more energy than those of T1 time (11,000 to 2500 B.P.) because they were carrying clean sands, but this difference may be one of source rather than energy level. It can be stated with more certainty that the depositional environment of T1 time was a broad marshy valley, criss-crossed by numerous shallow, sluggish streams that rarely flooded (Skinner et al. 1982).

The depositional environment of the T0 terrace is much different than that of the two older terraces. Judging by the entrenched, meandering nature of this part of the Trinity River system, and the extremely fine grain size of most of the sediment material, it would seem that the T0 terrace was mainly laid down as overbank deposits during floods and periods of high water, at least until recently. The advent of large-scale agricultural activity in the last 100 years has greatly increased the amount of soil eroded from areas above the T0 terrace, and it is possible that these areas are now the major source of sediment for the T0 terrace.

With regard to sources of lithic raw materials, the major source of chert and novaculite for the study area appears to have been the Cretaceous Antlers Formation to the west, obtained either from gravels eroded from it or by direct quarrying. The Antlers Formation, a Lower Cretaceous sandstone, is exposed along the headwaters of the Elm Fork of the Trinity River to the north and west of the study area and contains large amounts of pebble- to cobble-sized, varicolored cherts, reported to be stripped from the Arbuckle and Wichita Mountains of Oklahoma (Fisher and Rodda 1966, 1967; Moore 1969). This unit, which underlies the Western Cross Timbers, is up to 55% chert in places and would have provided ample quarry sites for early man only 45 to 65 km both to the north and the west of the study area in a belt extending northeast from Forestburg in Montague County, through Muenster to Bulcher and Sivells Bend in Denton County (Fisher and Rodda 1967). Because outcrops of the Antlers Formation probably existed in much the same area in Pleistocene times, undoubtedly some of its cherts were eroded and redeposited in glacial river terrace gravels. It is quite possible that these cherts would have been available in the Elm Fork gravels, although investigation of these deposits have failed to reveal any. Flakes of what appears to be Antlers Chert have been identified as present in at least one prehistoric site within the study area (Larry Banks 1981: personal communication).

Another source of lithic raw material within the study area consists of limited deposits of surface gravels containing quartzite cobbles identified as Oglalla Quartzite or Oglalla Chert. Several sources (Byrd 1971; Seni 1980) make it clear that the depositional range of the Oglalla Formation was well west of Fort Worth and probably in the vicinity of a north-south line along the east side of the Texas Panhandle. Thus, the Oglalla-like material in the study area is presumed to have been eroded and redeposited in a glacial terrace deposit. This material was definitely utilized as raw material by early man because a number of small procurement sites have been identified within the study area.

Cultural History

Extensive archaeological investigations conducted in the upper Trinity River basin within the past 40 years has provided a basic five-stage chronological sequence for the study area (Skinner et al. 1982).

Paleo-Indian Period	9500 B.C.- 6000 B.C.
Archaic Period	6000 B.C.-A.D. 600
Neo-American Period	A.D. 600-A.D. 1600
Historic Indian Period	A.D. 1600-A.D. 1800
Historic Anglo-American Period	A.D. 1830-A.D. 1982

For the present research purposes, a division of the Archaic period into three phases has been made on the basis of artifact assemblages (Figure 1-4). This division consists of an Early Archaic phase tentatively dated from 6000 B.C. to 4000 B.C., a Middle Archaic phase from 4000 B.C. to 2500 B.C. and a Late Archaic phase, dated from 2500 B.C. to A.D. 600. The distinctions between these three phases of the Archaic period are based on the previously defined Carrollton and Elam foci (Crook and Harris 1952, 1954; Suhm et al. 1954).

In a similar manner, the Neo-American Period has been divided into two phases (Lynott 1977:41). The distinction between the Early Neo-American phase (ca A.D. 600-1200) and the Late Neo-American phase (ca A.D. 1200-1600) has been made largely on the basis of projectile point styles and a few diagnostic ceramic types (Lynott 1977:82-83).

Finally, the Historic Anglo-American occupation in the area has been subdivided into four periods: the Initial Settlement period, from around 1830 to 1850; the Spread of Settlement period, dating from 1850 to 1875; the Competition period, from 1875 to 1935; and, finally, the Agribusiness period from 1935 to the present.

Paleo-Indian Period (ca. 9500-6000 B.C.)

This period generally has been characterized by having a big-game hunting subsistence pattern, with lanceolate projectile points being diagnostic. Important evidence for this period has been found at the Lewisville site, located almost directly south of the Lake Ray Roberts area, on the west bank of the Elm Fork (Crook and Harris 1957, 1958). Intermittent excavations over a period of 6 years resulted in the discovery of 21 "red-burned clay hearths" (Crook and Harris 1957:12) interpreted as firm evidence of human occupation. The discovery of a Clovis projectile point in one hearth (1957:9) and three radiocarbon dates of "more than 37,000 years old" (1957:8) suggest an early date for the site although a number of questions have been raised (Skinner et al. 1982).

Better evidence for Paleo-Indian utilization of the Elm Fork area has been found at the Field Branch Site (Jensen 1968), on the upper reaches of the Elm Fork in west-central Cooke County. The majority of the diagnostic material reported from this site are Paleo-Indian points (1 Midland, 2 Folsom, 2 Plainview, 1 Clovis, and 1 "Hell Gap-like").

Archaic Period (ca. 6000 B.C.-A.D.600)

The term "Archaic" is most often used to refer to "a foraging or hunting and gathering adaptation" (Shafer 1976:5), but it is also used in a practical sense to refer to a block of time during which this "Archaic" type of adaptation (or tradition) was in use.

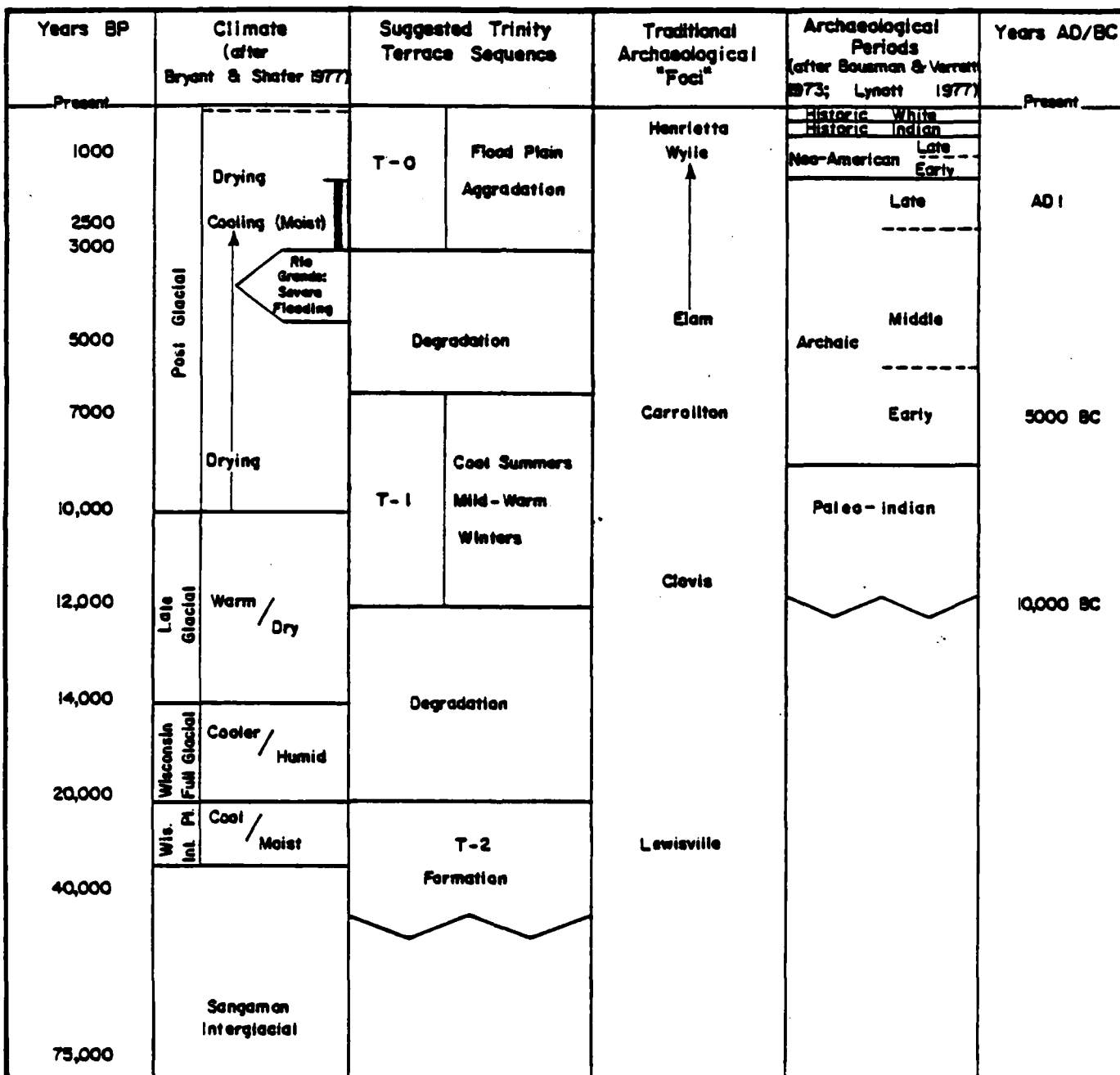


Figure 1-4. Correlation of reconstructed north Texas climatic sequence and suggested Trinity terrace sequence with traditional "foci" in north-central Texas, and archaeological periods used in this report.



In the area of north-central Texas, systematic studies of the Archaic period began in the 1950s with the definition of the Trinity aspect of the Texas Archaic. The Trinity aspect contained two temporal divisions: an early Carrollton focus, followed by a later Elam focus (Crook and Harris 1952).

Based on projectile point typology, and a single radiocarbon date of 3995 ± 200 B.C. (Campbell 1961) on the Late Carrollton component of the Wood Pit site, the Archaic period of north-central Texas has been broken tentatively into three phases: Early, Middle, and Late. The best interpretation at present seems to be that what has been defined as the Carrollton focus stretches from the Early Archaic (ca 6000 B.C.-4000 B.C.) through the Middle Archaic (ca 4000 B.C.-2500 B.C.). Some Carrollton sites contain early point forms, such as Plainview, Midland, and Scottsbluff along with local upper Trinity Archaic forms, such as Edgewood, Trinity, and Carrollton. At other sites these "diagnostic" Carrollton points occur with types which are Middle Archaic in central Texas (Weir 1976; Jelks 1978), such as Pedernales, Bulverde, and Palmillas. The Late Archaic (ca 2500 B.C.-A.D. 600) originally was characterized by what has been called the Elam focus, defined by locally evolved point forms such as Ellis, and Elam (and possibly Yarborough) along with Middle to Terminal Archaic forms from central and east Texas, such as Darl, Gary and Kent. The dating of these Archaic phases here has essentially followed that of Lynott (1977:46) and generally agrees with that of Weir (1976:63).

Neo-American Period (ca. A.D. 600-1600)

The term "Neo-American" has been used in Texas to refer to those "cultural manifestations which possessed pottery (whether made locally or acquired by trade); small, light arrow points; and agriculture of a more developed nature than that of the late Archaic Stage" (Suhm et al. 1954:20). In its practical application, the term is largely chronological. Lynott (1977) divides the Neo-American period of north-central Texas into an Early phase (ca A.D. 600-1200) and a Late phase (ca A.D. 1200-1600).

The Early Neo-American phase is recognizable by the presence of grog, grit, or bone tempered ceramics, along with points of the Alba, Scallorn, and Granbury types (Lynott 1977:41). Based on type-level similarities in pottery and projectile points, there appear to be associations to the south with the Austin focus of central Texas and to the east with the Gibson aspect of east Texas.

The Late Neo-American phase is characterized as containing locally-made shell-tempered ceramics (Nocona Plain), and Fresno, Harrell, Perdiz, and Clifton projectile points. This is essentially the complex which has been described as the Henrietta focus (Krieger 1946; Suhm et al. 1954). It is possible that north-central Texas received influences from the Fulton aspect of east Texas, the Toyah focus of central Texas and plains cultures to the north (Lynott 1977:41) in the Late Neo-American phase. In addition, the Henrietta focus originally was defined as showing evidence of contact with the Pueblo cultures to the west (Krieger 1946).

Historic Indian - Wichita (ca. 1600-1800)

The specific relationship between Late Neo-American populations in north-central Texas and the groups of Wichita which inhabited the general area historically is unclear. However, after a 1-year study devoted to this problem (Bell et al. 1967), Lorrain proposed that the Henrietta focus should be dated from A.D. 1000-1400 and was ancestral to the historic Wichita. She suggested that the Plains-adapted Henrietta focus groups moved eastward from north-central Texas to the eastern fringes of the

Caddo area between A.D. 1400 and 1500, possibly due to a widespread drought (Lorrain, in Bell et al. 1967:33-34, 36). It was further suggested that the Wichita moved back westward after A.D. 1700, following the western edge of the east Texas Timberlands south from the Red River to around Waco, then westward to the Cross Timbers, and then northward again (Lorrain, in Bell et al. 1967:36-37).

Historical Background

Permanent white settlement in north-central Texas, including the project area counties of Cooke, Grayson, and Denton, was relatively sparse prior to about 1830. The area was far enough removed from the main centers of early settlement in southern Texas so as not to receive many of its outmigrants. Indian groups still claimed the region as their own, and this also slowed the rate of white settlement.

Early Spanish explorers crossed sections of the project area centuries earlier than the first major white colonization effort in southern Texas (by Moses S. Austin), although few of those early explorers intentionally traveled through the project area. The first such exploration was commanded by the Spaniard Luis de Moscoso de Alvarado, who passed through present-day Pilot Point in 1542 (Bolton 1908). Moscoso had taken command of the ill-fated De Soto expedition, and passed through the area near the headwaters of the Trinity River on the way back to Mexico. While numerous Spanish colonization attempts occurred to the east of the area (such as the settlements of Alonso de Leon and Hernandez Coronado), little lasting Spanish influence was experienced in the far north-central counties of Texas (Webb 1952a; Bolton 1908). French exploration was more extensive in north-central Texas than that of the Spanish, who were concentrating on creating a buffer zone in east Texas. The most extensive exploration in the project area counties was that of the French soldier Athanase de Mezieres, who journeyed through the region in the 1760s and 1770s (Fehrenbach 1968) for trade purposes.

As long as major European powers disputed the region called Texas, little peaceful colonization was possible. The situation altered with the acquisition of Texas by Mexico from Spain in 1821. The first successful colonization in Texas was made by Moses Austin, who was granted 200,000 ac of land by the Mexican authorities in 1821, and who created a center of white settlement in southern Texas (Fehrenbach 1968).

North-central Texas was not colonized for almost 20 years after the Austin Colony's venture. The first large colonization in the project area occurred after W. S. Peters of St. Louis and 19 other men petitioned the Congress of the Republic of Texas on February 4, 1841, for a land grant. Their company, the Texian Land and Immigration Company, became known as the Peters Colony and encompassed all counties in the project area.

While there were settlers in the area prior to the 1840s, these were small-scale minor settlements (Acheson 1977). White settlers were in the Denton area as early as the 1830s, with a military outpost located 3 miles southwest of the present city of Denton. Peters Colonists began settling in the area by 1843, and Denton County was organized in 1846 (Webb 1952a). In the early 1840s colonists began homesteading along major waterways (such as the Elm Fork of the Trinity) in the Blackland Prairies and around the southern edge of the Cross Timbers (O'Brien 1944).

Some of the earliest settlements were established in Grayson County. Daniel Dugan and others formed the first town there, called Abel's Trading Post, in 1836 near present-day Pilot Grove (Webb 1952b). Two forts were established in the county by the

Republic of Texas in 1840: Fort Johnson, 4 miles north of modern Pottsboro, and Fort Preston, a supply depot on Preston Bend (Webb 1952b). The Peters Colony, which included the western edge of Grayson County, brought additional settlers to the area in 1842. Grayson County was formed from Fannin County in 1846, and Sherman was selected as county seat (Connor 1959; Webb 1952a).

In 1847, the Peters Colony administrators resumed national advertising in an effort to keep their commitments to the settlers and attract new homesteaders (Connor 1953; Williams 1976). The renewed advertising and recruiting resulted in a boost in population for north Texas. Between 1847 and 1848, almost 1300 settlers arrived (Connor 1953). By 1848, as towns were developing in the area, the colonists were requesting protection against local displaced Indians. Forts were built at Dixon Station, east of Pecan Creek, and Fitzhugh's Fort was built 3 miles southeast of present-day Gainesville (Fehrenbach 1968). By 1846, the rural village of Pilot Point was established, which was later to become a major rural-urban center in Denton and adjacent counties (Bates 1918).

As colonists began to fill the vacant lands in north Texas, settlement extended to new, unclaimed lands in the project area. Urban centers were developing during this period and rural communities were in their earliest stages of development. Agricultural patterns were developing around cotton and grain production as the main cash crops. The 1850s was a decade of steady growth, especially for the Peters Colonists, whose population had doubled by 1860 (Connor 1953).

Following the Civil War and the cessation of Indian raids, the area began a period of growth. Denton was incorporated in 1866, and 2 years later the Denton Monitor was established there. Grayson County established communication routes as well as commercial transportation routes during this period. The first commercial transport was the mail packet Era, which travelled up the Red River in 1855 (Smith 1955; Webb 1952a). The Butterfield Overland Stage began routes to Sherman from points southward 2 years later. Seven stage stops eventually were established in Grayson County.

The first extensive boom period in the project area, for rural as well as urban residents, occurred with the coming of the railroad in the mid-1870s. The arrival of the railroads to the project area created new markets for crops. The economic crisis of 1873 slowed railroad completion, and temporarily stunted agricultural expansion. Transportation was improving throughout the project area. By 1870, a stage line ran from Denton to Pilot Point. Both towns had populations of about 300 around 1870 (Webb 1952b). The major change in agricultural practices between 1850 and 1880 was the introduction of barbed wire in 1875; this made it practical to fence in cattle rather than fencing crops to keep livestock out, and had the effect of vastly decreasing the amount of open range land (Grace 1944).

Cattle had become a profitable business in the north-central Texas area after the Civil War, especially in Denton and Cooke counties. By 1870, the cattle industry contributed greatly to Denton and Cooke counties' economy and expansion (Collins 1981; Cowling 1936). By 1875, the majority of tillable homesteads had been claimed and settlement had spread across the entire project area; population density was increasing throughout the project area. The Cross Timbers region was the most heavily populated because the Blackland Prairie was second-choice land for most farmers (Williams 1976).

The Blackland Prairie was used more heavily after 1900, when available land became scarce in the Cross Timbers. Because subsistence farming lasted into the late 1890s, farming was not dramatically different between the Cross Timbers and the Blackland Prairie. With new markets accessible by rail, more land was put into increasing cash

crop production between 1875 and 1900. Cattle or stock production was more intensive on the western side of the project area close to the Grand Prairies. The introduction of barbed wire about 1875, and its widespread use after 1885, had made the open range a thing of the past by the 1890s. After 1900, prairie lands were used more for grazing than for crop production.

The economic turbulence of the two decades following 1900, caused in part by the unstable cotton economy nationwide combined with land forfeiture and repossession, and the availability of cheap farm labor, brought a rise in tenant farming in the form of both cash cropping and sharecropping after 1920.

By the mid-1930s, cotton was losing its importance as a cash crop in north-central Texas and farms were increasing in size. With increasing mechanization and the low price of land in the 1930s, many farms increased their land holdings and the total number of farms dropped. After 1935, the proportion of farmers share cropping, tenant farming, or cash renting dropped dramatically. While war-related jobs and the oil industry provided temporary relief from the economic hardships of falling farm crop prices, this relief was only temporary. Employment in the cities was an economic alternative chosen by many people in the project area.

After 1935, the three-county study area lost population and farmers converted to large-scale ranching/agribusiness, or left their farms because small farms were no longer economically viable. As agriculture became more specialized, cattle and grain increased in importance. Cultivated land was gradually returned to pasture, and few farmers continued to cultivate crops after World War II.

II. METHODOLOGY

Introduction

As a result of the cultural resources survey conducted within the Lake Ray Roberts construction area, 95 archaeological sites have been located and recorded. Sixty-six of the sites recorded during the survey contained only historic materials, 22 sites contained only prehistoric components, and 7 sites contained both prehistoric and historic components. Based on the high likelihood of destruction for these sites, some type of testing and/or evaluation procedure beyond the initial survey stage was utilized for 58 of them. The remainder of these sites were left without further testing for a variety of reasons, including (1) the reluctance of the landowner or lessee to allow any degree of subsurface disturbance; and (2) a high likelihood that any archaeological deposits were destroyed by current occupants or construction. This latter consideration was a factor in evaluating several sites with currently-occupied farmhouse complexes. A list of the sites tested, along with the type of testing done at each one is shown in Table 2-1. In addition to this work, 12 historic sites were chosen for site-specific historic archival research, while the remainder of the historic sites were evaluated to assess their potential for site-specific historic research.

The testing of the archaeological sites was accomplished in two phases. A staged testing program was used for several reasons. In light of the data gathered during the phase 1 stage, it was possible to recommend and propose additional and more appropriate testing during phase two. Also, sites located on tracts which had not been surveyed during the initial work were easily included in the phase 2 testing program.

The objective of the initial testing was to test depth, extent of deposit, site preservation, period of occupation, range of activities present, and to obtain an understanding of the types of information the site would yield with further study. Phase 2 testing was aimed at three additional goals: (1) verifying the validity of the earlier recommendations regarding National Register eligibility (both for and against); (2) collecting more data regarding the research potential of those sites which were strongly felt to be eligible; and (3) testing and evaluating any new sites encountered by the survey of those portions of the basic area which previously had been inaccessible.

The second phase of testing also provided the opportunity to test the results of limited magnetometer work undertaken at three of the more important prehistoric sites: 41DN99, 41DN102, and 41DN112. Portions of the second phase testing work at each of these three sites were aimed at evaluating results of this magnetometer work; however, results were generally discouraging. The results of the magnetometer survey itself are presented in Appendix 1, while the results of the follow-up testing are presented with the discussion of each site.

In general, the two-staged approach allowed greater latitude in adjusting the research strategy as testing proceeded. This, in turn, yielded a better understanding of the sites themselves and the range of variability represented.

At the end of phase 2 testing, 60 sites had been examined. Of these, 15 were prehistoric, 22 were historic with no standing architecture, 16 were historic with standing architecture and 7 had both historic and prehistoric remains. Unfortunately, three of the artifact concentrations observed at 41DN87 could not be tested because they were in cotton.

Table 2-1.
Summary of archaeological testing

Site	Phase 1 testing procedure	Phase 2 testing procedure
41DN76	7 auger holes/collection	4 test pits
41DN77	12 auger holes/collection	1 test pit
41DN78	7 auger holes/collection	1 test pit
41DN79	8 auger holes/2 test pits	9 m ² block excavation
41DN80	4 auger holes	1 test pit
41DN81	10 auger holes/2 test pits	2 test pits
41DN82	3 auger holes	none
41DN83	none	7 shovel tests
41DN84	4 auger holes	1 test pit
41DN85	3 auger holes/1 test pit	9 auger holes/1 test pit
41DN86	none	5 auger holes
41DN87	9 auger holes/16 shovel tests/collection	3 test pits
41DN88	none	7 shovel tests
41DN89	2 auger holes/6 shovel tests	none
41DN91	8 auger holes/collection	2 test pits
41DN92	none	6 shovel tests
41DN94	7 auger holes/collection	2 test pits
41DN95	6 auger holes/collection	none
41DN96	6 auger holes/collection	1 test pit/8 auger holes
41DN97	3 auger holes/3 shovel tests	9 auger holes/2 test pits
41DN98	3 auger holes	none
41DN99	16 auger holes/6 test pits	3 test pits
41DN100	1 auger hole/3 shovel tests/collection	none
41DN101	3 auger holes	6 auger holes/2 test pits
41DN102	15 auger holes/5 test pits	6 test pits
41DN103	10 auger holes/1 test pit	2 test pits
41DN104	5 auger holes/collection	none
41DN105	1 auger hole/5 shovel tests/collection	none
41DN106	none	6 shovel tests
41DN107	none	8 shovel tests
41DN108	12 auger holes/collection	1 test pit
41DN109	none	5 auger holes
41DN110	7 auger holes/collection	1 test pits
41DN111	9 auger holes/collection	1 test pit
41DN112	6 auger holes/2 test pits	4 test pits
41DN113	8 auger holes/collection	none
41DN114	6 auger holes	none
41DN115	4 auger holes	8 auger holes
41DN116	8 auger holes/collection	1 test pit
41DN119	none	5 shovel tests
41DN123	none	4 shovel tests
41DN126	none	6 shovel tests
41DN128	none	7 shovel tests
41DN132	none	7 shovel tests
41DN139	none	4 shovel tests
41DN143	none	11 shovel tests
41DN146	none	4 shovel tests
41DN194	none	5 auger holes/1 test pit/ collection
41DN195	none	8 auger holes/collect
41DN196	none	4 shovel tests
41DN197	none	1 test pit/15 shovel tests
41DN198	none	10 shovel tests
41DN199	none	9 auger holes/1 test pit
41DN200	none	6 auger holes/1 test pit/collection
41DN201	none	7 auger holes/collection
41DN202	none	7 auger holes/1 test pit/collection
41DN217	none	11 shovel tests/1 test pit
41DN219	none	3 shovel tests

The degree of testing ultimately undertaken on the prehistoric sites was based largely on the types of artifacts or features found to be present at the site by the survey, the degree of likelihood for buried deposits, the environmental location, the site size, and information obtained during phase I testing. An attempt was made to ensure adequate testing of all site sizes, types, and locations, as well as ensuring that no buried occupation zones or high artifact density areas went undetected on an otherwise unimportant-appearing site. As a result, the degree of testing and labor investment at each site varied in direct relation to its likelihood of being a valuable archaeological resource, but it is felt that every prehistoric site was evaluated in an appropriate manner.

Historic sites were chosen for testing based on the presence of standing features, discernable house or structure foundations, the presence of features such as limestone-lined wells or cellar depressions, the presence of varying types of artifacts, and indications of buried deposits. Based upon preliminary evaluations made during the survey, the majority of the historic sites found within the construction area was believed to date from about 1880 to 1920. No early sites were identified within the construction area prior to the testing. An attempt was made to select historic sites for further archaeological testing which would provide a representative cross-section of period of occupation, socio-economic status of the occupant, area of origin of the occupant, and type of regional adaptation, while ensuring that no historic site with preserved archaeological deposits went undetected.

Testing procedures were directed toward achieving certain goals at all sites, both historic and prehistoric. These goals included the collection of a sufficient amount of information to accurately evaluate preliminary estimates of site size, based on earlier survey information, and to estimate the depth of the cultural deposits at each site. A second goal was the collection of data which would allow a more reliable estimate of date of occupation for each site. This was especially important for the prehistoric sites, for which dating is often dependent upon a few diagnostic artifacts. Finally, an attempt was made to collect large artifact samples from all sites, on the basis of which a more reliable estimate of site function than that resulting from the survey could be made.

Archaeological Methodology

In general, certain procedures were carried out at all sites, whether prehistoric or historic, while other procedures were carried out at one or the other type of site but not both. Most sites selected for testing were augered to some degree using a power-auger. Those that were not augered were shovel tested. Shovel testing and augering (often in the form of a manual posthole digger) has long been recognized as a valuable technique for evaluating site size and depth (Bruseh et al. 1977; Cliff and Fifield 1980) and for locating buried middens (Fry 1972; Puleston 1973).

The techniques used to aid site testing at Lake Ray Roberts included both shovel testing and auger testing—making use of a two-man, 3.5 hp gasoline-powered auger with a 9-inch bit. Comparative studies of these two techniques have indicated that shovel testing adequately tests no deeper than 30 cm, but does examine a larger area from the surface than does the power-auger, whose great advantage is its ability to rapidly reach depths of up to 1 m or more (Chartkoff and Chartkoff 1980: 97-98). Thus, shovel testing and auger-testing were both used to aid the evaluation of historic sites, but only

auger-testing was used for prehistoric sites, in consideration of their possible greater depth. The use of a power-auger in connection with excavations at a rockshelter in Comanche County, Texas, also has pointed out the usefulness of this technique for evaluating the subsurface structure of a site in general (Bandy et al. 1981). The initial phase of testing at all sites involved the use of either shovel tests or auger tests to evaluate the area, depth, and density of the site. In some cases, augering consisted of only a few holes, while in others, as many as 16 auger holes were excavated. Augering provided a rapid and efficient technique for evaluating site dimensions and depth of cultural material, especially for prehistoric sites. The auger was used also to gather a complete series of soil samples to a depth of 1 m (for most sites tested) for future analysis. Finally, in the case of prehistoric sites, the density of subsurface material as revealed by the auger holes was used to guide the location of 1 x 1 m excavation units.

As noted previously, the auger testing was done with a gasoline-powered auger; it also had an extension which enabled the auger to reach a maximum depth of about 1.40 m (Figure 2-1). The auger holes generally were drilled in 20 cm increments, guided by a series of painted lines on the auger shaft. Shovel testing was done with a normal, pointed shovel using the technique referred to elsewhere as "the shovel probe technique" (Chartkoff and Chartkoff 1980: 102-103). This resulted in a probe about 30-40 cm in diameter and about 20-30 cm deep.

During the testing of each site, the locations of auger holes, shovel tests, test pits, collection transects and other landmarks were shot in with a transit using stadia distance. This has allowed the construction of accurate site maps with contour lines for most sites tested. In general, the maps reproduced in this report show 50 cm contour lines with the zero contour at the site datum. Several sites are exceptions, however, and have 1 m contour intervals, and in one case (41DN112), 2 m contour lines. This has been done for purposes of clarity. In general, all the map symbols in this report have been standardized for ease of presentation.

The subsurface nature of the historic sites was evaluated using either a series of shallow auger holes, or shovel tests. This was in addition to the deep auger hole already mentioned. On the first few historic sites tested, all test holes consisted of potentially deep auger holes (each test was made to 40 cm below any artifacts found). These sites were 41DN77 and 41DN78. From this work, it was clear that these historic sites had little depth, and it was decided to decrease the number of deep auger holes to one per site. After testing several sites in this manner, it was decided to abandon the deep test altogether. Shallow testing was done with a shovel on several sites in order to evaluate time and effort costs in comparison to the power-auger. These sites were 41DN87, 41DN97, 41DN100, and 41DN105. Based on this work, it was clear that the speed with which each test was made with the power-auger more than made up for auger assembly time. Thus, the bulk of the historic sites were tested using the power-auger, but the majority of tests placed around standing structures continued to be done with a shovel.

In general, all of the historic auger tests during phase 1 testing were unscreened. Some comparative experiments were conducted at 41DN87 and it was found that screening with $\frac{1}{8}$ " hardware cloth failed to recover any additional artifacts from material which already had been examined visually, and had all artifacts so located removed.

In addition to the general shallow tests and one deep test for soil samples, all features on the historic sites, such as depressions or cellars, were augered and/or test pitted to at least 1 m deep.



Figure 2-1 Photo illustrating use of power auger to aid evaluation of sites at Lake Ray Roberts.



In order to gather a reasonable artifact sample from the historic sites, a surface collection was made from those sites where surface material was present. Collections usually were made along two to three transect lines which passed through what appeared to be the central portion of the site. The procedure for this, generally, was to lay down two strings, which crossed with as close to a 90° angle as possible, through the site. Each string was then marked off in 3-m increments, and all artifacts within 50 cm of the string on either side were collected. Thus, each collection unit along the transect consisted of a 1 x 3 m rectangle and each artifact collected could be relocated to the nearest 3 m². A reasonable sample could not be collected from several sites such as 41DN200 because of the sparseness of artifacts observed on the surface. Instead, artifacts were shot in with a Brunton compass, distances taped off, and locations plotted on the site map.

Because it was believed that the prehistoric sites in the Lake Ray Roberts construction area had a greater potential for depth than the historic sites, all tests on these sites were done with an auger to as great a depth as possible. With a few exceptions, the fill of all auger tests in prehistoric sites was screened through ¼" hardware cloth. As with the historic sites, soil samples were collected from one auger hole for every site.

Most prehistoric sites were tested with one or more test pits to obtain larger artifact samples and gain a better idea of subsurface stratigraphy. These were 1 x 1 m test pits and were excavated to a depth of 1 m or to sterile deposits. Excavation was done in arbitrary 10-cm levels through the upper, culture-bearing levels in most test pits, but these levels were changed to 20 cm in order to speed excavation when the density of artifactual material dropped below five flakes per level. A photographic record was kept of all excavation levels and, following completion of the test, all four wall profiles were drawn and photographed.

Soil, pollen, and phytolith samples were collected from all levels of every test pit for future analysis and to obtain samples for water screening. Finally, in most cases, prior to backfilling, an auger hole was drilled as deeply as possible below the base of the test pit to examine the deeper strata. In only one instance, that of 41DN103, Test Unit 1, did this augering indicate any in situ cultural material below the level at which the test pit was terminated.

All excavated materials brought into the laboratory were first tagged, noting date received, site number, field unit, level, and date excavated. Also, at this time, the presence of historic material, prehistoric material or both was noted and the material assigned a unit number for cataloging purposes. All artifacts were then washed, and prehistoric and historic materials were separated for cataloging and analysis. All bone (with the exception of identified burial components from 41DN102), charcoal, shell fragments, and teeth (other than human) were cataloged with prehistoric artifacts, bagged by type, and stored separately. Both historic and prehistoric artifacts were rough sorted for cataloging and then analyzed, largely with the goal of clarifying settlement development and chronology during the historic period.

Historic artifacts were rough sorted into the following groups during cataloging:

- ceramics
- glass
- metal
- other and unidentifiable materials

During analysis the ceramic material was further sorted into whitewares, stonewares and porcelain. Characteristics of all three groups which were noted include applied surface decorations (hand or machine painting, transfers, and decals), surface molding, and type of fragment (rim fragment, body fragment, base fragment, or other molded fragment such as a portion of a figurine). Additional characteristics of stonewares which were noted include the presence or absence of slipping (a thin layer of clay applied to the formed vessel surface, either on the interior surface, exterior surface or both) and glazing. All glass was sorted by color and type of fragment (lip/neck fragment, body fragment, or base fragment). All molding, whether design or lettering was noted, as was the presence of whole bottles, making note of function, where possible. Counts also were made of fruit jar lid liners and window glass.

Metal artifacts encompassed the largest variety of potentially identifiable materials from the historic sites. The categories included nails (both wire and machine cut square), barbed wire, various identifiable agricultural, mechanical, and domestic items and unidentifiable metal fragments grouped by raw material type.

The "other/unidentifiable" group of artifacts included items of plastic, wood, rubber, leather, fabric, mother-of-pearl, and artifacts of other identifiable and unidentifiable types and raw materials.

Prehistoric materials were sorted into the following categories during cataloging:

- ceramics
- stone tools
- flakes
- other lithic items
- bone, charcoal, shell, teeth

Prehistoric ceramics resulting from the test excavations were in the minority, but were examined and typed individually on the basis of the ceramic type descriptions in the Handbook of Texas Archaeology (Suhm et al. 1954). Identifiable projectile points were typed similarly from the same source, while the other stone tools were typed using a standard morphological typology (Shiner 1974) in accordance with the types used during the survey phase (Skinner et al. 1982: Appendix I). Chronological assessment of the occupations present at the prehistoric sites was based on these ceramic and projectile point type designations, and it was hoped that the data relative to the tool assemblages from each site would help to clarify the functional designations given each site during the survey phase (Skinner et al. 1982: 7-2 - 7-24).

The flakes were identified and sorted by the following criteria:

- type of flake (unmodified, retouched, biface thinning)
- flake size
- degree of decortification
- degree of platform faceting
- raw material

Frequency counts were made on the basis of these sorts.

As with the stone tool assemblages, it was hoped that these data on the lithic debitage would clarify site function, as well as potential technological changes, both within the major periods of the Archaic and the Neo-American, and between them. It also was

hoped that examinations of the types of lithic material present at each site would show significant trends in regard to raw material utilization through time.

The bone, charcoal, and shell material obtained from the excavations were sorted, bagged, and stored separately. The faunal material derived from the first phase of testing was examined by Ms. Bonnie Yates of the Institute of Applied Sciences, North Texas State University, and the results are presented in Appendix 1.

The human remains recovered from 41DN102 were sorted and analyzed in the laboratory by Mr. Gary Rutenberg, and his results are incorporated into the overall discussion of site 41DN102. Finally, water screening samples taken from the majority of the excavation levels were processed and sorted in the laboratory.

Historical Research Methodology

As discussed in Volume I, historical research for the Lake Ray Roberts project has been tailored to surmount the difficulties of doing historical research within a cultural resources management framework. Budget constraints in the survey and initial testing phases and the large number of historic sites necessitated less than adequate historical research at both the general and site-specific level. The timing of the work was less than ideal as well because testing in the basic construction area was begun before survey of the entire project area was completed. Therefore, historical research during the testing phase was designed to meet two goals: first, to provide additional background information about the settlement, growth, and development needed to evaluate the historical significance of sites in the area; and second, to provide further site-specific information about those sites judged to be archaeologically or architecturally potentially significant.

Historical information that was lacking after survey completion included several research concerns: the location of early industrial sites thought to be present; the social and economic structure of rural neighborhoods during the pre-1900 portion of the Competition phase; and the location of historic churches mentioned in the secondary literature but not pinpointed during the survey. Therefore, in consultation with Corps officials, it was decided that, rather than researching the histories of every site as specified in the original scope of work, research would focus on the above-mentioned general topics and on those sites thought to be potentially significant, in order to determine whether interpretive primary historical information was available (i.e., whether their historical research potential was high). In addition to potentially significant sites, several additional sites were selected for further in-depth research on the basis of the criteria outlined below, in order to establish a comparative site-specific data base.

1. Selection of sites uniformly distributed within the 7,435 acres to determine the extent of the historic neighborhood(s).
2. Selection of sites from each of the tentatively established temporal periods using the information gained from the initial survey.
3. Selection of sites including commercial, industrial, and educational functions as well as residential and agricultural sites.
4. Selection of sites that included all status levels present in the neighborhood(s) in order to interpret artifact patterns found during archaeological testing. Because

the economic status of a farmsite's residents was unknown prior to testing, several sites were selected randomly for further investigation.

As was true of the archaeological research, historical research in the testing phase was divided into two segments. During initial testing, seven sites were chosen for limited site-specific investigation. During further testing, an additional five sites were chosen for more historical research.

This research strategy was designed to collect as much historical information as possible on a general and site-specific level. By selecting a sample of farmsites for further investigation, patterns of land tenure, agriculture, and building could be examined on the level of the individual, while research on the general history of the neighborhoods yielded a larger perspective and allowed the typicality, historical significance, and research potential of the sites to be assessed.

Site-specific historical research was designed to clarify questions regarding the potential eligibility of specific sites, as well as to provide information about the characteristics of different site types in the basic construction area. To this end, only minimal historical research was conducted for each site.

Documentary research for each site was begun by establishing the chain-of-title for each site, insofar as the existing Denton County records would allow. Probate indices were consulted to determine if any of the landowners had left detailed wills, or if inventories had been conducted of the deceased's personal property. In the case of sites 41DN78, 41DN79, 41DN97, 41DN202, and 41DN223, tax records also were searched. When general historical documentary research was completed during further testing, this information was incorporated, where possible, into the site-specific histories. However, integrating this information presented a problem because there is little overlap between the best source of documentary information, the decennial Census, and oral history information obtained about the early twentieth century. Manuscript Censuses, where people are listed individually, exist for the project area in two forms: the Population Schedules, available for 1850, 1860, 1870, 1880, and 1900; and Agricultural Schedules, available for 1850, 1860, 1870, and 1880. As discussed below, only the 1880 Census has been searched systematically by the historical research staff. Connecting information on individuals with a particular site is an interactive process using all available data sources, and as such, was beyond the scope of testing. Intensive site-specific research designed to compile a site history through time is more properly included in the mitigation phase, as discussed in the Recommendation chapter of this report.

At least one oral history interview was conducted for the majority of the sites. These sites were included in more general interviews about the neighborhood in the early twentieth century. Interviews were conducted by oral history interviewers singly or in teams of two. Potential informants were identified primarily by the simple expedient of asking at occupied farmsteads near the sites in question to see if the occupants knew of persons knowledgeable about those sites. Informants already interviewed in the general interviewing phase, and local residents involved in local history pursuits, also were queried to see if they had suggestions for potential informants who might know about the history of these sites. The potential informants then were screened to assess their relative contribution. In this way, the field time available for interviewing was used as effectively as possible in terms of information collected.

Nonetheless, problems and inconsistencies in the interviewing process occurred because of scheduling circumstances. For instance, during initial testing, one informant was ill

on the day she was scheduled to be interviewed and so could give only minimal site information; she was re-interviewed during further testing. In those cases where scheduling difficulties occurred during further testing, some gaps in the information remain. As often occurs in the course of conducting interviews concerning specific sites, other informants were suggested who could have contributed additional information and perhaps more complete information about the sites. Some informants were knowledgeable about more than one site being investigated and thus were doubly useful; conversely, some informants had no information about the sites (despite initial screening, it is not always possible to tell in advance how useful a potential informant will be). Although some informants had information about more than one site, a single interview was not usually sufficient to elicit more than cursory information about additional sites.

Another problem occurred because of variations in individuals' perceptions of their early environment. Some people's memory is better than others when discussing the physical characteristics of an historic site. In general, men are usually better sources for agricultural and construction histories, while women generally are more able to provide information on interior and exterior decorative elements and foodways. Even so, individuals' awareness and memory of their environment varies drastically within any age group and usually cannot be predicted in advance. Such problems can often be surmounted by doing a series of interviews to research a site; where this is not possible, inadequacies in the data base are inevitable.

The following statements are made regarding the reliability of the historical data presented here. For both oral history and documentary sources, cross-comparison of information is generally accepted as minimally necessary before accepting that information as reliable. However, as Allen and Montell (1981) point out, the process of validating information is an exceptionally time-consuming one, requiring an in-depth knowledge of the sources of information presented, and an ability to use many sources (both primary and secondary) interactively over a long period of time. In the present study, historical research time was severely limited. In the first testing phase, some identified informants were not contacted due to lack of project time, and likewise, not all possible documentary sources were utilized. This is especially true of the known secondary sources for which there are no indices, but which can be expected to have occasional references to the sites being researched if consulted after names and dates associated with those sites have been identified.

Two major difficulties in conducting site-specific historical research in this area can be identified from the first phase of the testing. First, chain-of-title research is only marginally successful for sites in Denton County because the Denton County court house burned in 1875, destroying all the county records. Land transactions in the earliest years of settlement were difficult to reconstruct after the court house burned, as a result of earlier confusions caused by the Peter's Colony's management. The absence of pre-1875 county records also means that no probate records are available to itemize household and farm possessions during the Initial Settlement and Spread of Settlement periods. It appears from our research that the practice of itemizing inventories, if it was ever common in this area, had been eliminated by the early 1880s.

Second, effective site-specific research requires an intimate knowledge of neighborhood families' genealogies and geography. Disregard for filing legal documents as proof of ownership, combined with the custom of reusing given names for fathers, sons, grandsons, uncles, cousins and distant relatives, often makes the interpretation of oral accounts difficult. Census population and agricultural schedules used in tandem often can shed light on the relative location of farms and the relationships of their owners to

each other. Therefore, the historical results section of this report has been written as if the information told us and pieced together from deed research and other documentary sources is totally true, although this may not be the case. It should be noted that we have no reason to believe that the information presented here is false or misleading; we are, however, cautioning against using any part of these data without further attempts at confirmation and collection of additional information.

Although limited, the site-specific research was sufficient to assess historical research potential and make a tentative determination of significance. Therefore, no further research was conducted for these sites during testing. Further research recommended as a part of the mitigation phase is discussed in the Recommendations chapter of this volume.

During further testing, sites with low archaeological or architectural research potential were not investigated because they were not recommended for inclusion in the National Register of Historic Places. Rather, sites were selected for site-specific historical research whose archaeological research potential was known or assumed to be good. In addition to site-specific research, some of the general documentary research not funded in previous phases was included in the further testing phase.

As a result of initial testing, several persons were identified who probably would be able to provide in-depth information about the basic area in the early twentieth century. Therefore, a number of general interviews were conducted as a part of the further testing phase. Interview questions, both for general and for site-specific interviews, were revised prior to starting this sequence of interviews to make them more readily understandable to the persons being interviewed.

The goal of further documentary research in the testing phase was to determine the character boundaries of historic neighborhoods in the basic project area prior to the turn of the century. Defining the character of a neighborhood involves collecting information on settlement, growth, and development in that area, and combining that information with "slice of time" information about the area during the historic periods. Because a detailed study for the entire time period using all available sources would be prohibitively expensive and time-consuming, a narrow "slice of time" likely to yield the most comprehensive information was selected for this study.

The period selected was the last quarter of the nineteenth century, specifically around 1880. This era was chosen because it is the transition period between the Spread of Settlement and Competition periods, a time when the area should have been undergoing significant change in all aspects of community and individual life. The availability of source material also played a major role in the choice of this particular time focus. Manuscripts of the decennial Censuses of the United States are available up to and including 1900. Most of the 1890 manuscripts, however, were lost in a fire, and agricultural schedules for 1900 were destroyed by a mandate from Congress. Censuses prior to 1880 contain significantly less information, particularly concerning population origins and agricultural practices. Because a maximum amount of data is obviously desirable, and the era is one of particular interest from a research standpoint, 1880 is an ideal year for intensive historical research to focus on.

In addition to the Population and Agricultural Schedules of the 1880 Census, several other kinds of records are extant for this period. Although usually of limited value for rural sites, the Census Schedules also include an Industrial Census, a list of manufacturers, and information about their facilities and production. Of more help are cemetery records and transcriptions of cemetery headstones. These had already been

transcribed by Thelma Stevens of the Denton County Historical Commission, and were checked against the field survey records. Deed records and tax and probate records collected during site-specific research also were used. School records, held by the Denton County Historical Commission Archives, were fragmentary but provided important information about community identification and structure. Secondary sources identified by the initial survey literature review, particularly Bates (1918), were used in compiling additional information.

Record groups, usually helpful in similar historical research but not located for the basic area, include church records (including membership rolls), marriage records, baptismal records, and/or burial records; rural directories; county atlases; newspaper circulation lists, especially those of foreign language newspapers; and membership lists of fraternal organizations.

The historical research hypotheses posed in the research design are concerned primarily with historical settlement and development in the project area and the impact of that development on evolution of distinct cultural patterns. In dealing with the historical development of the project area through existing documents, the first goal is to determine which records within the various record groups apply to the project area. As mentioned elsewhere, geographical location is one of the most difficult aspects to deal with in historical research because locations are rarely explicitly spelled out. This is particularly critical in the case of record groups organized on the basis of other frameworks, be they alphabetical, by district, or randomly arranged. Therefore, the first problem in working with 1880 Census information was the identification of the project area locality.

Denton County was divided into 10 enumeration districts for the 1880 Census. Unfortunately, the Census Bureau did not preserve maps of these districts or records of the routes traveled by the individual enumerators. Some of the districts are identifiable as urban areas, listed under the town name, or even as wards within a town. These were quickly eliminated, leaving a smaller sample of districts as potentially encompassing the basic area. An "interactive sources" approach was used to select the district(s) thought to include the basic area.

The interactive source approach is used here to mean the process of using all available records more or less simultaneously, checking and cross-checking as people are mentioned in first one source and then another, or can be tied to a particular location or locality. In this manner, other settlements in the county were eliminated, and the approximate boundaries of the Census districts identified. Once a district (or districts) was chosen, any attempt to narrow the research to the actual project area probably would have proved fruitless because of the difficulty of positively stating where all but a few of the farms are located. Use of one or two districts, however, which are thought to include project area neighborhoods, allows generalized statements about agricultural patterns, kinship ties, extent of area settlement and development, and so forth.

These generalized statements, however, must necessarily be filled with qualifiers. The main problem with using the interactive sources approach is the definitive cross-identification of individuals; that is, determining whether a person mentioned in one source is the same as the person mentioned in another. Addresses or locations, particularly in rural settings, may be given in different forms; the first name may vary (e.g., Jon., John, or J. and a middle initial); there may be several families with the same surname (indeed, this is likely in areas of chain migration), and these families may or may not be related; children may be named after relatives in their extended families. All these cause confusion in the identification process.

An additional problem is caused by partial records. In the case of primary sources, this is generally due to loss from fire or flooding, misfiling, or loss in the moving or storage process. Late nineteenth and early twentieth century legal records may be lost as well because their importance was not recognized and entire record groups were not saved.

Despite these drawbacks, however, the interactive sources approach is a rewarding one because county statistics are aggregated and contain none of the distinctions vital in testing the research hypotheses, such as the difference between settlement in the two geographic regions or the difference through time in community organizations and networks. Use of aggregated individual data in a localized area thus yields a "sample" population that can be compared to the larger county statistics and discussed in terms of neighborhood formation and organization.

One other benefit in assembling interactive source material is less obvious. In the mitigation phase, where extensive site-specific research will be conducted as a part of historic site mitigation, detailed information about individuals already will have been assembled and will be easily retrievable. Thus, information accumulated during this research will be doubly useful. Further, because historical record groups are notoriously idiosyncratic, the limitations and special conditions inherent in using record types already will be known; this means that information about individuals is less likely to be taken out of context or misinterpreted.

Interactive sources were used to identify the Census districts used in this study. Land ownership names ca. 1880 from the previous chain-of-title searches were combined with names from cemeteries in the basic area and the names of original patent owners in the Denton County portion of the project area, and an alphabetical list was compiled. This list was used to search the 1880 Census Soundex (a phonetic index) to determine if any of these people were located in a likely Census district. Clusters of probable residents were found in district 109. District 104 was less definite, but was identified by process of elimination: District 109 did not encompass the entire basic area, and all other districts were established as being in other portions of the county. Therefore, districts 109 and 104 were selected as basic study units.

These districts were then computer coded so that data would be easily manipulable. Both the Population and Agricultural Schedules were coded. This information was used in several ways: to generate general statistics and frequencies for use in writing about the characteristics of the area at this time; in defining neighborhoods in the basic area; and in compiling a master alphabetical file for all persons known or thought to be living in the basic area.

The master alphabetical card file was used to pull together all information collected concerning a particular person, and that person's known relationships to other people or families in the area. The file will be updated as new record groups (i.e., the 1850 or 1860 Censuses) are used in the course of later studies. The use of other kinds of records as they were used in tandem with the Census is discussed in the Results section of this report.

Several problems with nineteenth century manuscript Censuses should be noted for those not familiar with the particular conditions under which the enumerators worked. Each enumerator was given one or more districts, and was responsible for systematically querying the residents of his district. Population and Agricultural Schedules were usually conducted separately, so that the route taken by the Census taker was similar but not identical in rural areas. All residents where no one was at home (ostensibly) were noted, and the Census taker proceeded to the next house.

Therefore, the Census does not include all persons residing in the district; i.e., if someone is not listed, they are not necessarily not present in that year. In addition, if someone was itinerant or visiting elsewhere, their location in another district may be misleading. Manuscript enumerations, as the name implies, were done in longhand. This introduces a number of difficulties: handwriting often is illegible; in any case, nineteenth century handwriting style varies considerably from that of today. Census takers varied in education and in inclination toward absolute accuracy; spellings are sometimes idiosyncratic (e.g., phonetic, or according to his own ethnic background). This is compounded by the illiteracy rate in the people being surveyed; many times they did not know how to spell their own names.

Momentary inattention on the part of the Census taker provides other idiosyncracies in the data as well, such as forgetting to advance the dwelling or family number, or checking the wrong column. This resulted in entries where a wife is listed as single, a child listed as female and son, or the birthplaces of children's parents do not correspond with the birthplaces of parents as recorded. Obviously, these errors, even when noted, are difficult to correct due to lack of corroborative documentation.

Part of the problems with Census information was built into the system itself. Numerous interpretations were available for each question, both on the part of the questioner and those queried. A son who attends school and works on the farm could be recorded either way; a child under a certain age might be recorded as "can't read/write" or might not, depending on whether or not those categories are perceived as being measures of illiteracy; foreign birthplaces could be recorded as a country, province, state, or city (resulting as such entries as "Lima" and tens of variations on the eastern European states). Division of households was also a problem; does a widowed daughter and her son constitute a separate household if they lived under the same roof as her parents? Within a district, Census takers were more or less consistent, so that a pattern often is evident in spelling, interpretations, and handwriting vagaries. Specific information about districts 104 and 109 are contained in the Results chapter.

As was true of the initial historical research, scheduling constraints dictated that the additional historical research tasks be divided among the research staff. During initial testing, three oral history interviewers and one historical research assistant conducted primary research, and the Architectural Historian and the architectural assistant conducted the architectural analysis. Because of the time lapse between phases, the oral history interviewers and research assistant were not available for work accomplished as a part of further testing. Therefore, oral history interviewing was conducted during further testing by two new oral historians, and primary and secondary historical research was divided among five full-time and one part-time historical research assistants.

No new difficulties occurred in the second phase of the oral history interviewing. The major problem, not uncommon in projects such as this, was to find informants who knew the area. Once initial contact was made with a potential informant, from his or her suggestion came names of other potential sources. Once contact was established, the interviewing process went smoothly. The questions were reworked so that they could be better understood by the informants. The informants were asked the same questions to develop a consistent history of the area. Those questions on concepts such as land tenure were found to work better when followed by an example, especially if the example was an explanation offered by the informant's contemporaries. A method that proved to be very helpful was the driving tour interview. Used with informant Steve Hester, valuable information was gathered about specific sites as well as information that was not covered in the interview. A map was made to accompany the tape; on it

the route taken was marked. Counter numbers giving specific information about sites also were marked on the map. A tape log also was written for the interview.

The only other problem in oral history interviewing was that of time. Once the tapes had been logged, inconsistencies and gaps could be seen. Unfortunately, the interviewers were not always able to return and request the informant. Also, names of other informants were assembled, but due to the time constraints, these people could not be screened or interviewed during this phase.

In doing the deed research for testing sites in the basic area, the first task was to determine in which survey plat the site is located. The historical research assistants were provided with U. S. Geological Survey maps that had each site labeled and located. Major roads and river beds from the U.S.G.S maps were matched to comparable roads and river beds on county plat maps found in the Denton County Plat Office. Different mapping scales, and roads whose courses had been changed over the years, made the process of locating plats very time consuming.

After determining the plat and particular tract where each site was located, an information card was pulled from the plat office file. This card listed owners of the property, purchasing dates, acreages, amounts of compensation, and other information. Records were often incomplete, and very few of the cards listed owners before 1880. None of the cards that were checked traced the owners back to the original patentee.

After locating as many owner's names as possible, a search of deeds was made. Copies of the original deeds are bound and are kept in the Denton County court house. When the volume numbers were available on plat office cards, the deed research consisted of pulling the correct volume and obtaining the required information. When no volume number was provided, the volume numbers were obtained from the Direct Deed Index, or the Reverse Deed Index.

The Direct Deed Index is a yearly index that lists each grantee and grantor of land in that given year, and the volume number in which the deed is located. The Direct Deed Index is arranged alphabetically by the sir name of the grantor. However, though all the A's are together, and all the B's are together, none of the individual names in any given letter are in alphabetical order. Therefore, when searching for a grantor's name, one must locate the section that contains all the names beginning with the same letter and go down the columns until the desired name is found.

The Reverse Index acts in much the same way as the Direct Index, except that all deed transactions are listed alphabetically by the sir name of the grantee.

Some deed information was never uncovered because of inaccurate records, illegible handwriting, or failure of proper papers to be filed at the time of the transaction. Many of the records were lost when the court house burned in 1875. Some people refiled their records, but many simply did not bother. When all else failed, it was found that some sites still had original land patents on file. Searching through wills and probate inventories also helped to fill the gaps. Given the difficulty of determining site location, it is not surprising that in one case oral history information revealed that the chain-of-title research had been assembled for an adjacent tract. Due to the time constraints of this phase, there was not time to perform the research again and so only the oral history results are presented in the Results chapter of this report.

Given that research tasks had to be divided, never an optimal situation, coordinating and maintaining the continuity of the research was stressed in designing and managing

the historical aspects of this phase. With the exception listed above, schedule constraints posed more of a problem in the analysis of data than in the processes of data gathering and organizing, because analysis is usually begun midway through a research problem in order to evaluate and supplement original data collection methods; in this case, several information sources were identified as potentially helpful but were not consulted in the time available. In particular, abstracts (and probably period land plat maps) for many sites in the area are held by Jagoe Abstracts in Denton; however, retrieving useful information from those files is likely to be an extensive project in itself, and it was not undertaken during this project.

Other potential sources of information available to the historical research team are the 1850 and 1860 Population Censuses for Denton County, which already had been coded. The accuracy of this coding, done by students, has not yet been checked. Furthermore, project time was not available to add this information to the research files in a systematic fashion, although the necessary programming has been accomplished.

Scheduling difficulties affecting historical research may be said to be primarily a result of scheduling archaeological work and setting historical research to the same schedule. This problem is a general one in Cultural Resource Management (CRM) as it is routinely conducted. When historical research is compressed and spread among several researchers rather than allowing a single person to work with the various data bases sequentially, information is necessarily lost. As is evident in the Results chapter, however, even the present CRM framework allowed a great deal of information to be collected, which in turn allowed potentially significant sites to be identified with precision, and the research potential of those sites to be assessed.

III. PREHISTORIC SITE TESTING RESULTS

Introduction

Survey of the basic construction area for Lake Ray Roberts revealed 18 sites with prehistoric components (Figure 3-1). Of these 18 sites, 14 were solely prehistoric in date, 3 had early historic components, and 1 was closely associated with a standing structure complex. Although three of these sites contained historic artifacts (41DN79, 41DN81, and 41DN112), the results of testing are reported in this chapter.

In addition to the 18 sites mentioned above, an additional 8 historic sites revealed a small quantity of prehistoric artifacts (Figure 3-1). These seven sites are discussed in Chapter IV.

In general, the prehistoric site testing results are presented in numerical order by site. The one exception to this is site 41DN101, which is presented with sites 41DN79, 41DN80, 41DN81, and 41DN82. As can be seen from Figure 3-1, these five sites are closely associated spatially, and actually occupy the northern edge of a single terrace remnant which projects into the floodplain of the Elm Fork. Because of their close spatial association and potential temporal and functional association, these five sites are presented together. The remainder of the tested prehistoric sites follow in numerical order.

41DN79, 41DN80, 41DN81, 41DN82, and 41DN101

As noted above, the five sites occupy the same terrace ridge on the west side of the Elm Fork (Figure 3-2). The three sites 41DN79, 41DN80, and 41DN81 are all close enough to one another to be interpreted as a single site based on proximity alone. However, at the time these three sites were found and recorded, the size of the surface scatter of 41DN80 was much less than it is now known to be, and the three sites were recorded separately.

In retrospect, this may have been a serendipitous occurrence, because there is some evidence to indicate that the three areas represent different temporal occupations. In addition, the three sites may have served different functions, based on their artifact content. Finally, both 41DN79 and 41DN81 contain historic components. It is worth noting that one reason that the edges of the three sites were close to each other is probably a result of deflation and erosion, especially on the western side of 41DN80 and in the low area between 41DN80 and 41DN81.

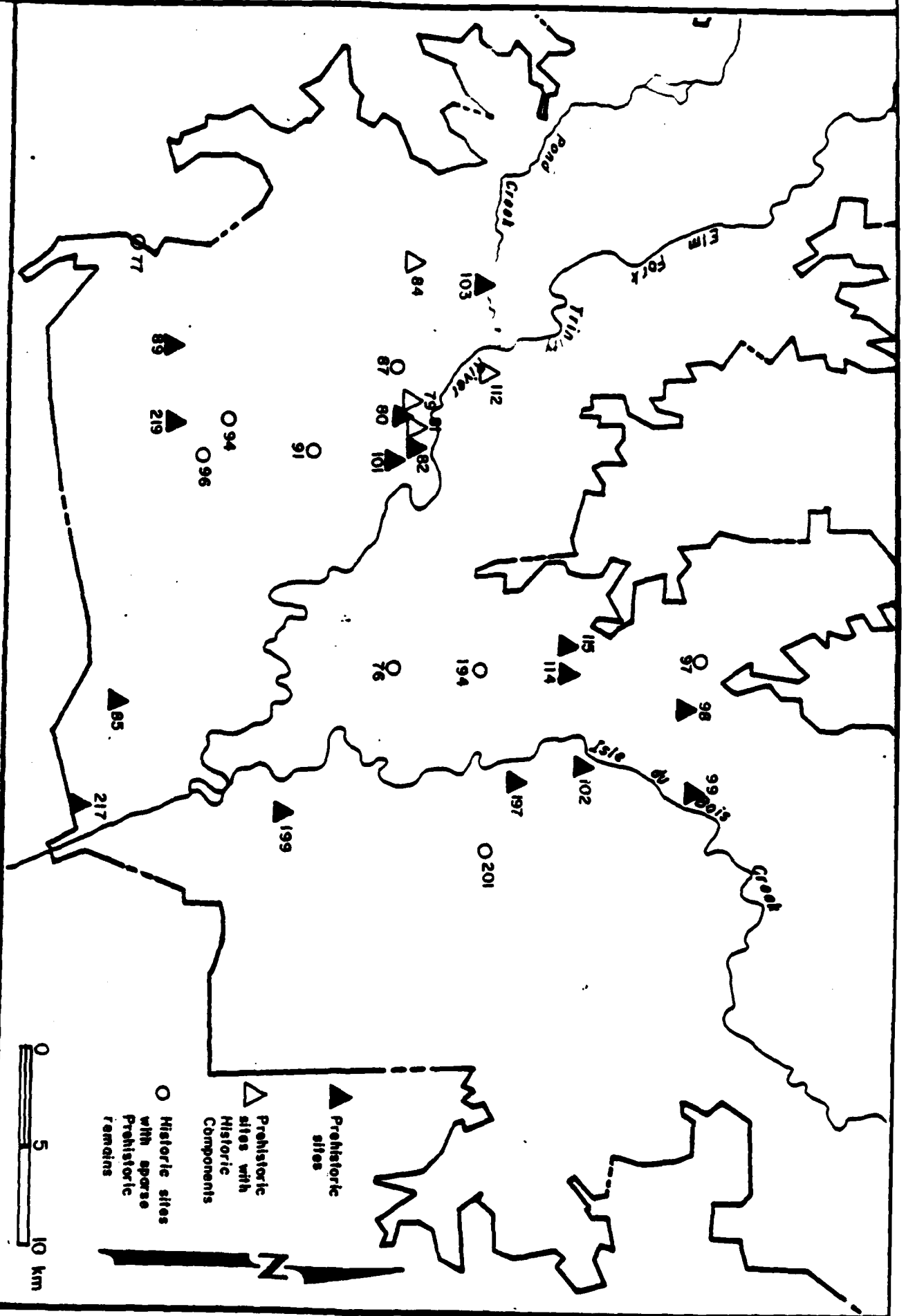
Following the separate descriptions of testing at each of these five sites, they are summarized.

41DN79

Site 41DN79 is situated in a plowed field on the edge of the T1 terrace, 0.75 km due west of the Elm Fork of the Trinity River. It is located 20 m south of a slough which flows eastward into the Elm Fork at an elevation of about 180 m.

The site initially was recorded as a mixed surface scatter of prehistoric and historic artifacts situated on the north face of a slight rise (Figure 3-3). Prehistoric materials noted on the ground consisted of scattered fire-cracked rock, secondary and interior flakes (primarily of quartzite), hammerstones, retouched flakes, a biface and a biface fragment, and some mussel shell. On the basis of the artifact assemblage and site size,

Figure 3-1. Locations of sites with prehistoric occupations tested within the Lake Ray Roberts construction area.



ELM FORK FLOODPLAIN

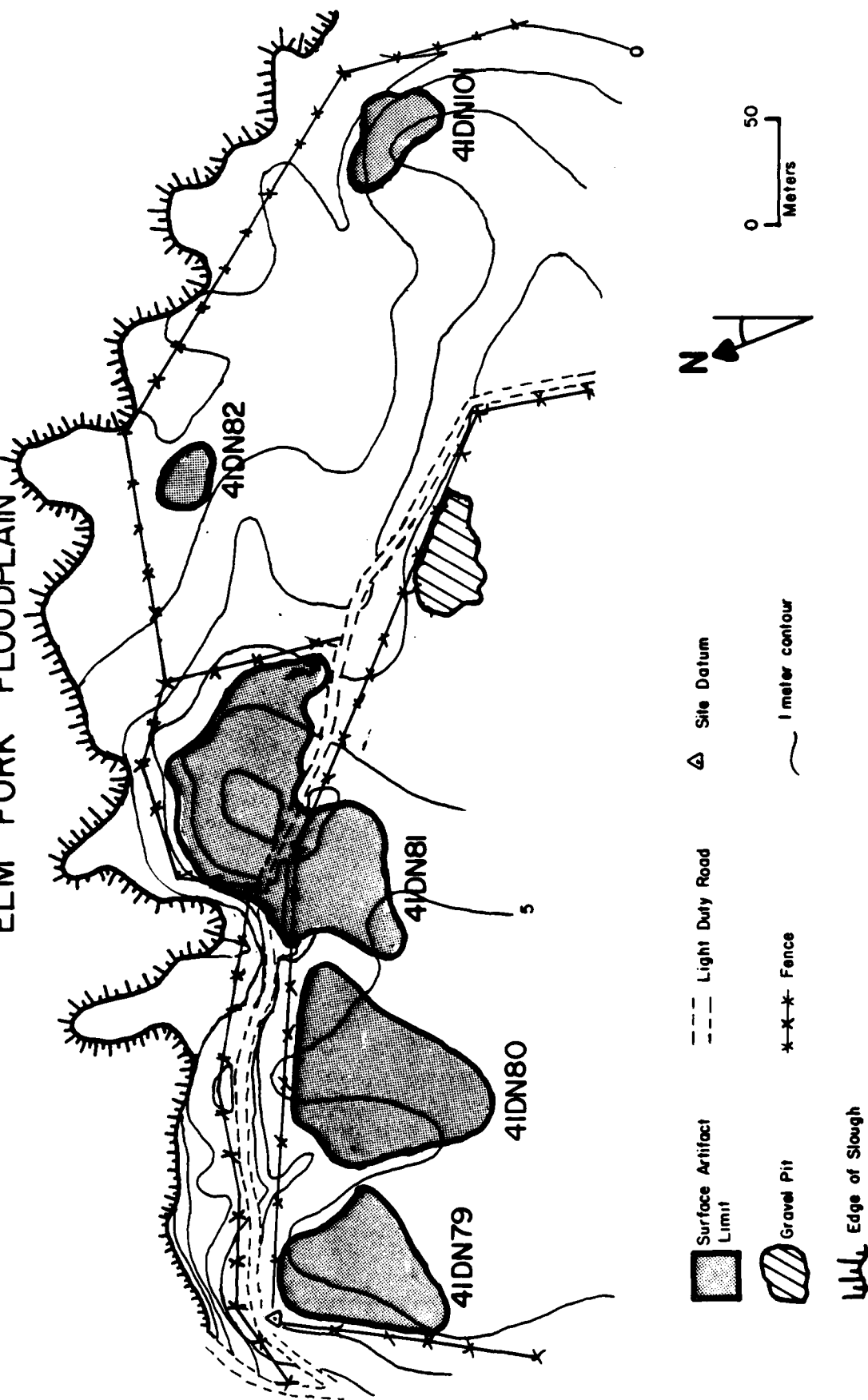


Figure 3-2. Map of the terrace remnant containing sites 41DN79, 80, 81, 82, and 101, showing limits of surface scatter for each site.



41DN79 Testing

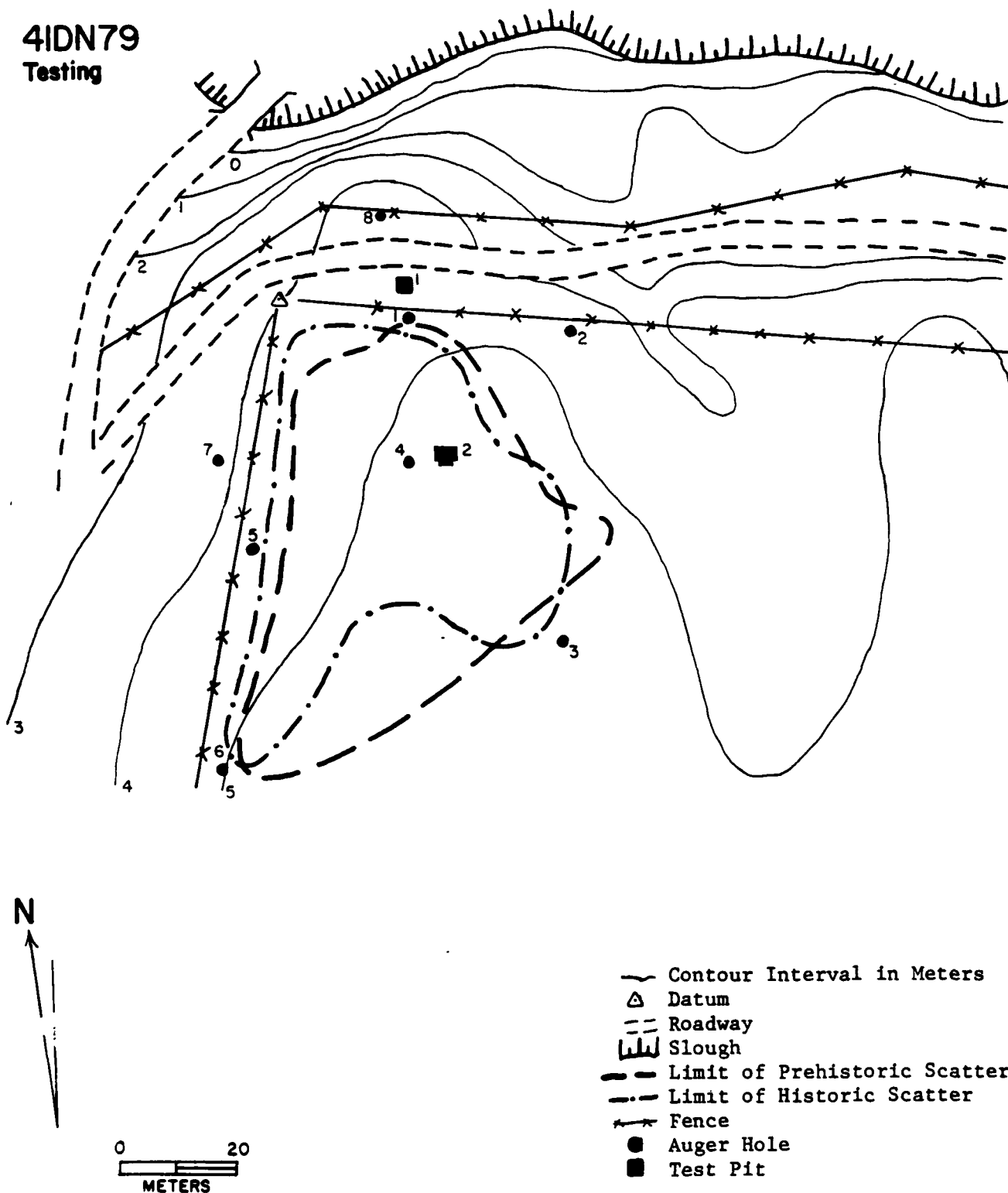


Figure 3-3. Contour map of multi-component site 41DN79, showing locations of test units.



the site initially was typed as a macroband seasonal base camp (Skinner et al. 1982). The historic debris consisted primarily of household material in the form of scattered broken bottle glass and ceramics. The area of the prehistoric artifact scatter was recorded as being 91 m north-to-south by 64 m east-to-west and encompassed about 0.35 ha. The historic artifact scatter was recorded as about 0.41 ha in area, being 88 m north-to-south by 67 m east-to-west.

Based upon survey information, the historic occupation of 41DN79 was judged to be post-1900. The presence of a farmstead on this site on the 1917 soil survey map of Denton County supported this view. Thus, the historic component at 41DN79 was dated at least to the later phase of the Competition period (ca. 1875-1935). Reliable dating of the prehistoric component of this site could not be made from the survey data, and the site was placed tentatively in the Late Archaic period.

The soil associated with the site is a brown, Bastrop fine sandy loam. The site has been disturbed somewhat by plowing. This activity was believed to have redistributed artifacts to some extent, and to have disturbed subsurface cultural deposits. As a result, one of the primary goals of testing was to evaluate the extent of subsurface disturbance. For this reason, it was decided initially to employ two 1 x 1 m test pits in addition to augering to evaluate the subsurface nature of this site. When one of these tests revealed the presence of possible postholes, a larger area was opened up around it.

Testing Results

Initial subsurface testing at 41DN79 involved the excavation of eight auger holes at various locations across the site (Figure 3-3). It was expected that auger holes would yield data on the subsurface geology of the site, and guide the placement of test pits. The results of the augering program are presented in Appendix 3. Artifacts were found in four of the eight tests, with a heavy charcoal concentration coming from a fifth.

Based on the augering, the historic component of 41DN79 appeared to be located more to the northern end of the site and within 40 cm of the ground surface. The only two historic artifacts from the augering came from Auger Hole 1. In addition, Auger Hole 8, contained large rocks with numerous charcoal fragments. Based on the well preserved nature of the charcoal, it is probably from the historic occupation.

Prehistoric material was found close to the surface in Auger Hole 1, about 80 cm down in Auger Hole 2, and from 40 to 80 cm in Auger Hole 4. Also, one possible flake was found about 20 cm in Auger Hole 5. Based on the results of augering, two excavation units were located in what were judged to be the densest portions of the site. Test Unit 1 was placed north of Auger Hole 2, and was excavated in 10 cm levels to a depth of 40 cm. Level 5 was excavated as a 20 cm level, only the top 10 cm of which contained any cultural material. The test pit was terminated at the base of Level 5 and an auger hole was excavated an additional 95 cm. A description of the levels is presented in Appendix 3.

Historic and prehistoric material was found within the upper 40 to 50 cm of Test Unit 1. Historic material was prominent in all five levels. No in situ features were noted, but one complete Gary point was recovered from the southwest corner in Level 3 (Figure 3-4).

Test Unit 2 was placed northeast of Auger Hole 4. Whereas Test Unit 1 had been placed north of the plowed field in which most of 41DN79 is located, Test Unit 2 was placed in the field in order to estimate the degree of disturbance. A summary of the excavation

levels of this second unit is presented in Appendix 3, and Figure 3-5 shows the north wall profile.

The majority of the artifacts recovered from Test Unit 2 were prehistoric and came from the top two levels. A possible chert gunflint was recovered from Level 1 and an almost complete Perdiz point was found in Level 2 (Figure 3-4). The culture-bearing deposits are confined to the top 10 to 20 cm and are almost entirely within the plow zone. However, some apparent postholes were noted at the base of Level 2 and, based on this, it was decided to open up a larger area surrounding Test Unit 2 in hopes of locating more postholes. A series of nine additional 1 x 1 m test pits were excavated on almost all sides of the original Test Unit 2, labelled Test Units 2b, through 2j. These units were generally excavated to a depth of 20 to 25 cm. Six apparent postholes were identified in this area (Figures 3-6a and b). These are in addition to the three possible postholes already noted in the original Test Unit 2, and an additional two possible postholes in the northeast portion of the larger excavated area (Figure 3-6b).

Based on the posthole distribution, it is hypothesized that a portion of one circular structure is present in Test Unit 2 as reconstructed in Figure 3-6b. While these reconstructions are hypothetical given the small amount of area excavated, an examination of the artifacts recovered from Test Unit 2 shows some interesting spatial distributions (Figure 3-7). The distribution of lithic debris in Test Unit 2 does not seem to show any differential distribution of debris between the area north of the posthole arc and that south of it (Figure 3-7a). Looking at the total assemblage of lithic debris from Levels 1 and 2, the proportion of lithic debris in each square varies from only 5 to 14%, with one square having no lithic debris. The two levels show a different pattern when considered separately. The distribution of lithic debris in Level 1 shows a pattern similar to the two levels combined, with material evenly distributed (Figure 3-7b). Proportions vary from 4 to 16%, and there is still one square with no debris. The distribution of material in Level 2 seems to show a more interesting pattern (Figure 3-7c). When grouped into areas north and south of the posthole arc, the bulk of the lithic debris from Level 2 (98%) is located in squares that are partially or entirely south of the posthole arc in contrast to only 56% in this same area on Level 1. This suggests (1) that Level 2 is the better preserved of the two levels, and (2) that the curving posthole alignment in the north-central portion of the test area represents a break in the depositional pattern of lithic debris, such as would be expected from a structure wall.

Following this exercise, the distributional patterns of the tools and of the non-artifactual remains from Test Unit 2 also were examined (Figures 3-7d and 3-7e). Only four tools were found in Level 2, so Levels 1 and 2 were combined in order to look at tool distributions. Interestingly, the distribution of these remains show a pattern almost exactly the opposite of that for the lithic debris in Level 2. Eight of the tools (38%) were located in squares almost entirely inside the posthole alignment, while an additional seven (52%) were located in squares which are partially within the posthole arc. Only one tool was recovered from a square which was completely outside of the arc and, because it was a small fragment of a metate, it should probably be considered trans and consequently functionally belonging with the lithic debris.

Of the non-artifactual remains, all eight bone fragments and fire-cracked rock from Test Unit 2 were recovered from squares which were partially or completely within the posthole arc. This distribution of bone is interesting in light of the large quantities of bone debris recovered from several Wichita pithouses excavated along the Red River (Woodall 1967). In this case, it was felt that the houses served as trash receptacles following abandonment.

- Figure 3-4. Lithic artifacts from 41DN79 (Scale 1:1).
- a. Small "Trinity-like" point collected from surface.
 - b. Circular mano from surface.
 - c. Utilized flake from surface.
 - d. Perdiz point fragment from Test Unit 2.
 - e. Gary point from Test Unit 1.
 - f. Possible gunflint fragment from Test Unit 2.



North Profile

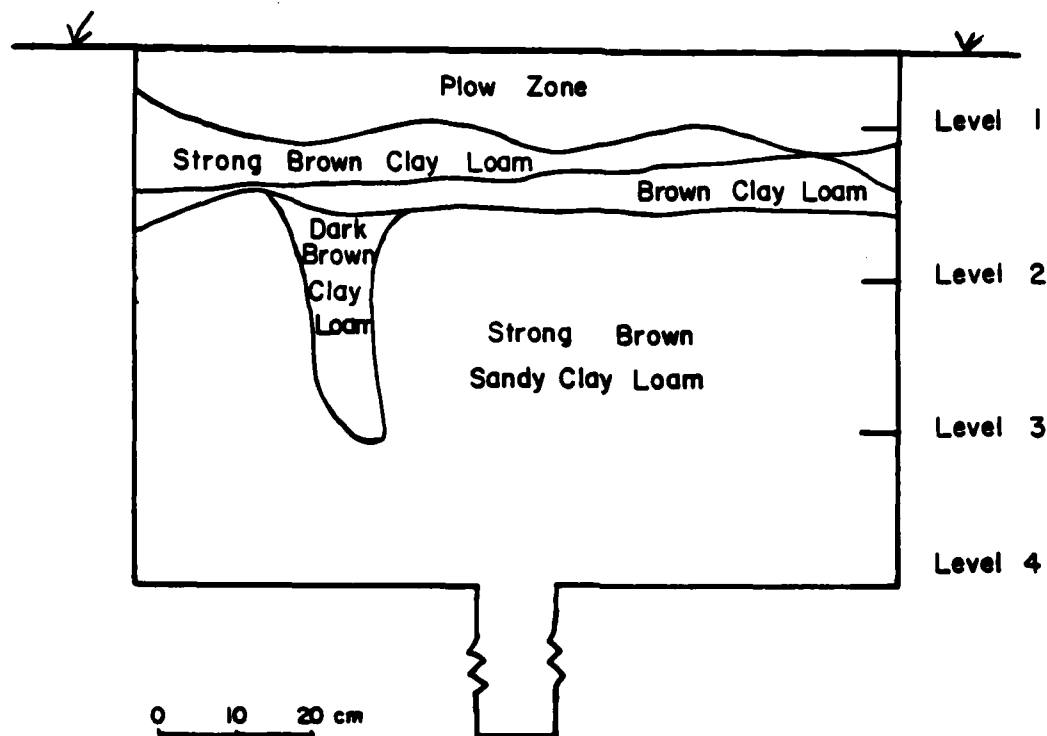


Figure 3-5. Profile of north wall of Test Unit 2, 41DN79.

Based on the excavations of Test Unit 2, it is hypothesized that the curving posthole alignment is part of an oval or circular structure of unknown size, but presumably similar to houses identified with the Late Neo-American to early Historic period along the Red River (Bell et al. 1967; Lorrain 1969). Unfortunately, it is uncertain whether this structure was a pithouse.

Artifacts

The majority of prehistoric artifacts recovered from 41DN79 (Table 3-1) consists of lithic debris. Most of the raw material is local quartzite or chert from gravel deposits. Some decortification flakes were noted, but the bulk of the flakes seem to be the result of a bifacial cobble reduction technology. Quite a few of the finer chert flakes show heat treatment and thermal alteration.

Only 35 secondary chert flakes were recovered as compared to 58 quartzite secondary flakes. The other types of chert and quartzite flakes are comparable. This suggests that a relatively large amount of quartzite reduction was occurring on the site, and may indicate that a quartzite source was nearby.

Three projectile points were recovered. A quartzite Gary point was recovered from Level 3 of Test Unit 1, a chert Perdiz point was recovered from Level 2 of Test Unit 2 and a small chert "Trinity-like" point was recovered from the surface. The presence of the Gary point is not temporally significant because they occur from the Middle Archaic through the Neo-American periods. However, the presence of the "Trinity-like" point and the possible Perdiz point indicates Middle Archaic and Late Neo-

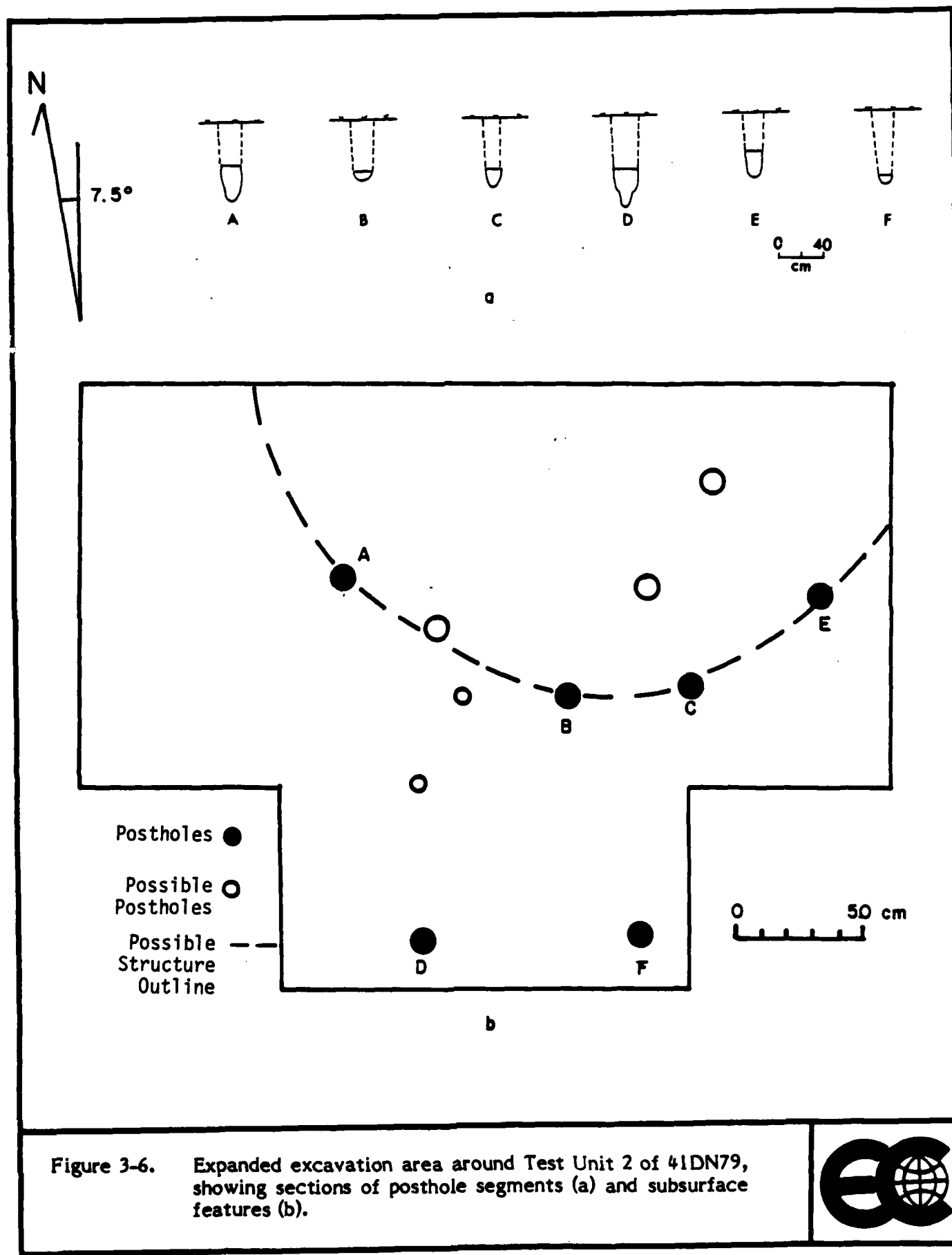
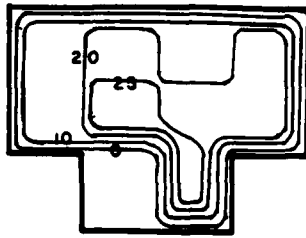


Figure 3-6. Expanded excavation area around Test Unit 2 of 41DN79, showing sections of posthole segments (a) and subsurface features (b).



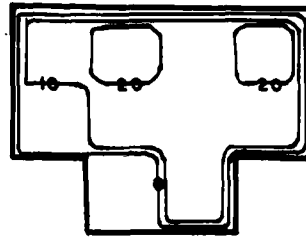
Lithic Debris:

Top 2 Levels



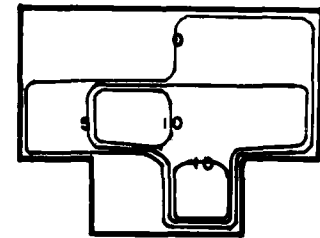
a

Level 1



b

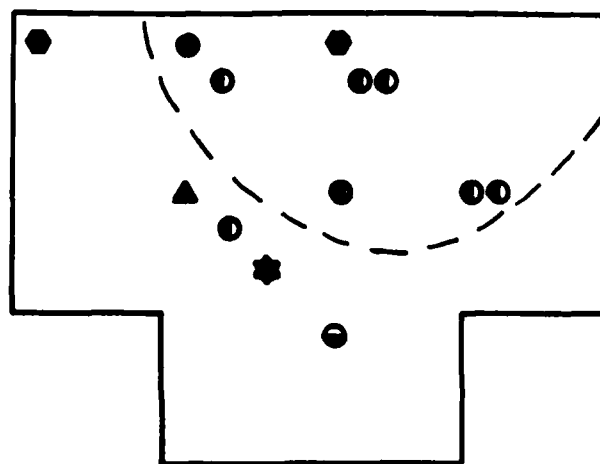
Level 2



c

Tools:

- ▲ Projectile Point
- Hammerstone
- Utilized Flake
- Scraper
- Ground Stone
- ★ Gunflint

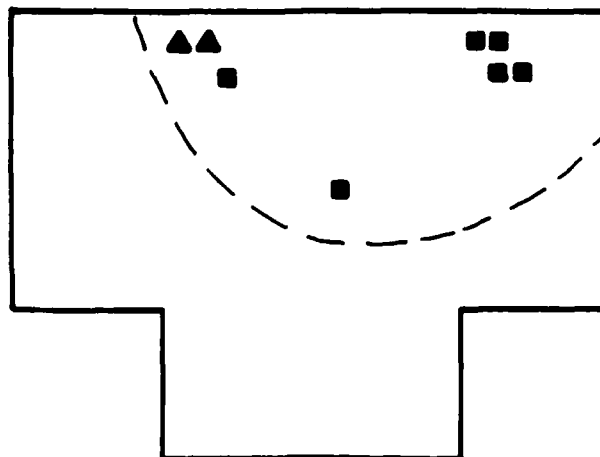


d

Suggested Structure Outline

Non-artifactual Remains:

- ▲ Fire-Cracked Rock
- Bone



e

Suggested Structure Outline

Figure 3-7. Distribution of excavated material from Test Area 2 in relation to suggested structure location: (a, b, c) lithic debris, (d) tools, (e) non-artifactual remains.



Table 3-1.
Prehistoric artifacts recovered: 41DN79

Type	Chert	Quartzite	Other	Total
FLAKES				
Primary	5	4		9
Secondary	35	58	6	99
Interior	76	41	10	127
Biface thinning	73	14	2	89
DEBRIS	17	1	1	19
TOOLS				
Bifaces	6	4		10
Scrapers	1	1		2
Retouched pieces	12	2		14
Projectile points				
"Trinity"	1			1
Gary		1		1
Perdiz	1			1
CORES	5	1		6
GROUNDSTONE				
Mano			1	1
Fragments	—	—	2	2
TOTAL	232	127	22	381

American occupations. In addition to the above mentioned-artifacts, eight pieces of bone and three pieces of shell were recovered from excavation and are believed to be associated with the prehistoric occupations.

Regarding historic material (Table 3-2), this site contains items characteristic of the late 1800s through the 1920s. The metal artifacts included 5 square nails, 26 wire nails, a metal shank button clothing snap, one screw, and metal fragments of a stove, tin can, and an unidentified cast iron container. Decorated ceramics are represented by 10 white paste earthenware sherds. One is a flow blue transfer print; one is a transfer print that has some areas painted over; four are mold decorated (one is blue shell-feather edge decorated, four are blue transfer prints, one is a red transfer print, one is painted, and another combines several techniques). The three stoneware sherds had either clear or colored glazes as surface treatment.

The historic artifacts from 41DN79 are composed of approximately 34% ceramic, 40% glass, and 25% metal. Earthenware accounts for over 30% of the 309 artifacts, and bottle glass represents another 39%. In addition, a few other functionally identifiable items were collected. One bullet cartridge, three snaps, one safety pin head, one shoe grommet, one carpet tack, and one mother-of-pearl button were taken from the site. A ceramic maker's mark was identified as Davenport (British, 1793-1882). The site exhibits evidence of a possible early occupation and abandonment around 1840-1860.

Summary

Site 41DN79 is believed to date largely to the Late Neo-American period, with possibly a Middle to Late Archaic occupation and a very tentative suggestion of early historic activity. Most of the site has been plowed over and the artifact-bearing deposits are mixed. Despite this, some aboriginal features (postholes) are preserved at the base of

Table 3-2.
Historic artifacts recovered: 41DN79

Type	Surface	Augering	Test Units			Total
			1	2	2A-J	
CERAMIC						
Earthenware						
Plain decoration	6	1	50	3	18	78
Plain dec. with maker's mark	1			1		2
Mold decorated	1		2		1	4
Blue shell-feather-edge	1					1
Flow blue transfer print				1		1
Blue and black transfer print			1			1
Blue transfer print	3				1	4
Red transfer print	1					1
Painted					1	1
Slipped/painted/mold dec.					1	1
Stoneware						
Clear glaze	2					2
Unidentified slip/Glaze (burned)	1					1
White paste, plain, undec.					2	2
Porcelain						
Plain decoration	1		2		2	5
Mold decorated			1			1
GLASS						
Bottle fragments						
Body						
Unmarked						
Clear	2		40		6	48
Purple	2		18	2	1	23
Green			25		3	28
Brown		1	9	1		11
Blue-green			1		1	2
Olive					2	2
Molded/embossed						
Clear			4			4
Base						
Mold marked/embossed						
Purple			2			2
Green			1			1
Milk glass-white						
Jar liner			1			1
Other			1			1
Tumbler-unmarked			1			1
Unidentified tableware- press molded			1			1
METAL						
Wire nail			25	1		26
Square nail			5		3	8
Staple			1			1
Screw			1			1
Wire			3			3
Bullet cartridge			1			1
Snap			2	1		3
Barbed wire			1			1
Safety pin head			1			1
Carpet tack			1			1
Shoe grommet			1			1
Spoon handle					1	1
Unidentified			28	2		30
OTHER						
Button						
Mother-of-pearl	—	—	1	—	—	1
TOTAL	21	2	231	12	43	309

plow zone in the central portion of the site, and a thin historic midden is situated on the northern margin of the site.

Site 41DN79 originally was typed following the survey as a macroband seasonal base camp with a concentration on mussel collecting as the main subsistence activity (Skinner et al. 1982). Testing does not refute the view that the site was utilized on a seasonal basis by a relatively large social group (referred to as a macroband), although they would seem to indicate a more broad-range subsistence pattern than was believed originally. Although much of the site has been mixed by plowing, it is felt to be of sufficient value to be nominated to the National Register of Historic Places. The presence of preserved postholes means that the site could supply information on Late Neo-American architecture and form in the project area. Finally, excavation in the apparently rich historic midden on the northern edge of the site can supply important data needed for an adequate study of nineteenth century regional adaptation in the entire lake area.

41DN80

Site 41DN80 is situated in a plowed field at the edge of a T1 terrace of the Elm Fork at an elevation of about 181 m. The site is located about 0.75 km due west of the Elm Fork of the Trinity River, and about 25 m south of a slough that flows eastward into the Elm Fork.

The site was recorded as a sparse surface scatter of lithic debris and tools including quartzite and chert flakes, a single grinding/nutting stone, and a chert graver. It was typed initially as a seasonal microband camp. Quartzite appeared to be the predominant lithic material on the site. The density of surface artifacts was light, except for a small concentration of quartzite flakes in the northeast section of the site (Figure 3-8). The site is oriented basically north-south (about 100 m north-to-south by 89 m east-to-west) as is the direction of plowing. The total area of the surface scatter encompasses about 0.73 ha.

The soil associated with 41DN80 is a brown Bastrop fine sandy loam. Plowing of the site may have resulted in shifting and mixing of artifacts from their original cultural context.

Testing Results

Initial subsurface investigations at 41DN80 consisted of four auger holes excavated around the site core area. The results of this augering are presented in Appendix 3. Only one of the auger holes (Hole 4) revealed any artifacts, and these were sparse and confined to the upper 60 cm.

During the second phase of testing, the field was in cultivation, and nothing could be done in that area, as per the stipulations of the lessee. Test Unit 1 was a 1 x 1 m test pit placed in an unplowed area near the site datum on the eastern side of the site. Test Unit 1 was excavated to 38 cm where excavation was terminated due to lack of cultural material. Very few artifacts were recovered and what was present consisted of mixed historic and prehistoric material. Despite the fact that Test Unit 1 was placed outside the cultivated part of the field, no topsoil was found to be present. The stratigraphy for Unit 1 is presented in Appendix 3.

41DN80
Testing

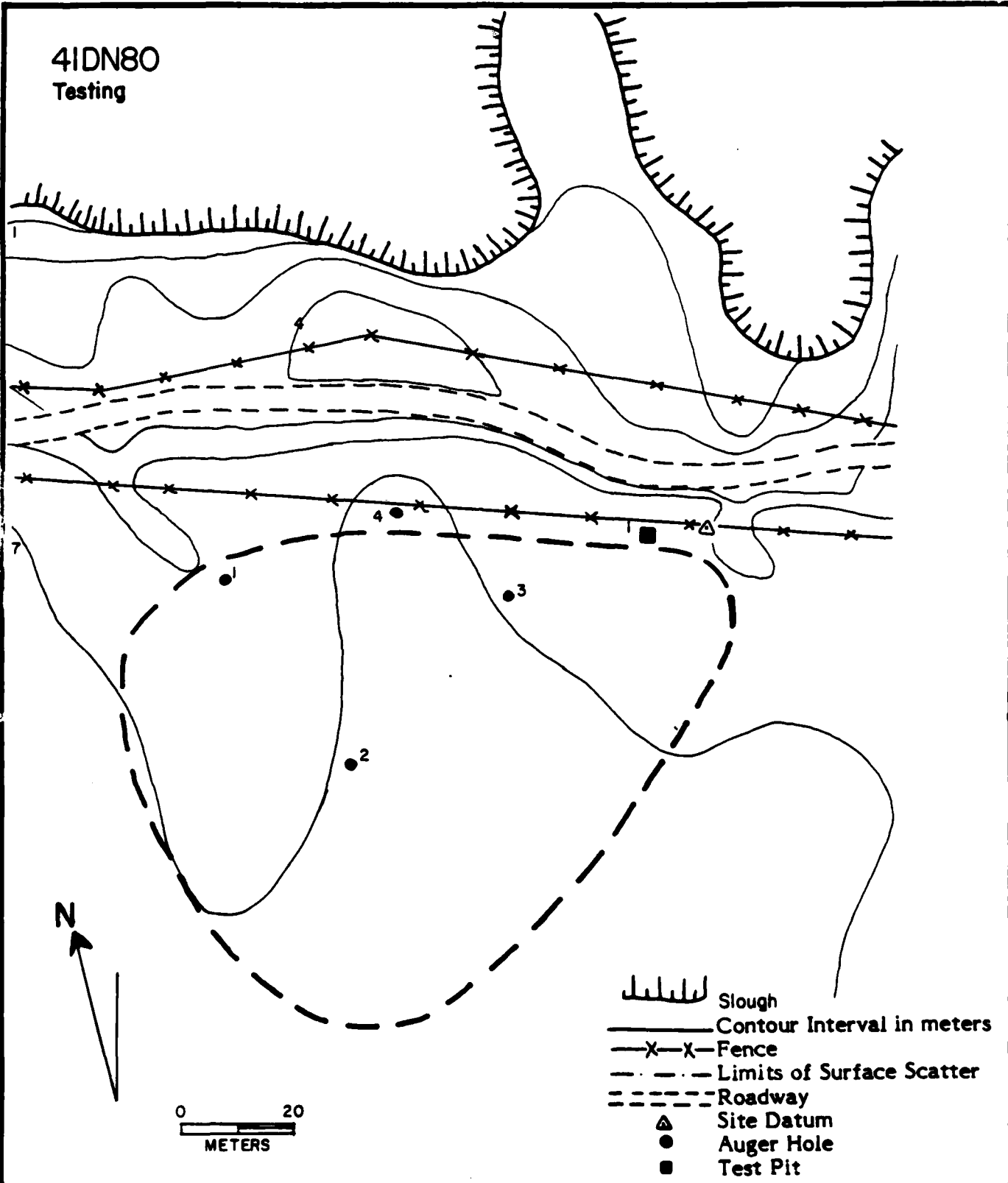
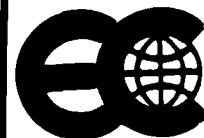


Figure 3-8. Contour map of prehistoric site 41DN80, showing locations of test units.



Artifacts

The chipped stone artifacts from 41DN80, are summarized in Table 3-3. The majority of the tools were recovered from the surface of the site (Figure 3-9). The only diagnostic artifacts are a broken Meserve point and what may be an unfinished Lange or Yarbrough point. The remainder of the artifacts from 41DN80 are relatively undistinguished. The presence of the Meserve point and the relatively large size of the other point suggest an early date for the site, possibly in the Early Archaic, although the overall artifact sample is small.

Summary

Based upon testing, site 41DN80 may date to the Early Archaic, although the evidence is equivocal. Most of the site is in cultivation, and the portion which is not appears to have suffered greatly from past plowing and erosion. Apparently all of the culture-bearing deposits are mixed or destroyed, and no preserved features were found. In consideration of the lack of a preserved deposit, together with the low surface artifact density, it is recommended that no further work be undertaken at this site.

41DN81

Site 41DN81 is a multi-component prehistoric and historic site. It is situated in a plowed field, on the edge of the T1 terrace of the Elm Fork at an elevation of about 178 m. The site is located 0.50 km west of the Elm Fork, and just south of a slough that drains eastward into the Elm Fork. The prehistoric component of the site occurs in two sections separated from each other by a fenceline and a light duty road (Figure 3-10). The historic component of the site is entirely confined to the area north of the road.

The area of 41DN81 south of the road was recorded as a surface scatter of prehistoric lithic debris on a slight, north-facing slope in a plowed field. Artifacts observed included unutilized flakes, a scraper, several milling stones, retouched flakes and three projectile points. Two of these points, a Gary and an Ellis, may be Late Archaic while the third is a Neo-American Fresno point (Figure 3-11). Later, during initial testing, a small Edgewood point was found on the surface. The surface artifacts were widely scattered. The orientation of this area was from northeast to southwest, and most of the lithic material was quartzite.

The area north of the road was a dense surface scatter of prehistoric and historic artifacts on a slight knoll. This part of the site is in a plowed field. The prehistoric artifacts included fire-cracked rock, numerous interior flakes, scrapers, bifaces and bifacial fragments, retouched flakes, cores, and groundstone. Most of the lithics observed in this area were manufactured from quartzite, with chert being utilized less extensively. Surface artifacts from the historic component included numerous glass bottle fragments (green, purple, brown, clear, and black), broken china (embossed, transfer blue print, and plain white), earthenware, fragments of cut glass containers, a door knob, a spoon, a horseshoe, and other unidentifiable metal fragments.

The entire scatter of prehistoric material covered an area of about 0.93 ha, and measured about 104 m north-to-south and 156 m east-to-west. The historic component, in contrast, covered only about 0.49 ha, and was 74 m north-to-south by 103 m east-to-west. The soil associated with 41DN81 is a brown Bastrop fine sandy loam.

Based on the survey data, 41DN81 was typed as a macroband base camp and was believed to have two prehistoric components: one being Late Archaic or Early Neo-

Table 3-3.
Prehistoric artifacts recovered: 41DN80

Type	Chert	Quartzite	Other	Total
FLAKES				
Primary	1		1	2
Secondary	5	1		6
Interior	3	1	1	5
DEBRIS			4	4
TOOLS				
Bifaces	1	2		3
Retouched pieces	2			2
Projectile points				
Meserve	1			1
Lange/Yarbrough	<u>1</u>	<u>—</u>	<u>—</u>	<u>1</u>
TOTAL	14	4	6	24

American (based on the Ellis and Gary points) and the other being Late Neo-American (based on the Fresno point). The historic component of the site was believed to be post-1900. The site is shown on the 1917 Denton County soil map, which reinforced this interpretation.

Testing Results:

The first phase of subsurface testing at 41DN81 involved the excavation of 10 auger holes at various locations (Figure 3-10). The results of augering are presented in Appendix 3. Four of the auger tests yielded artifactual material, but only one was located in the area south of the road. Auger Hole 1a indicated that the cultural material south of the road was shallower and less dense than that north of the road. Based on the results of the augering, four excavation units were excavated.

Test Unit 1 was placed in the southern part of 41DN81 just to the north of the plowed field and east of Auger Hole 1a. All three of the points (or point fragments) recovered during the survey of 41DN81 had been found in this area, and it was felt that this portion of the site might contain the earliest material. Test Unit 1 was excavated to a depth of 50 cm. The bottom 20 cm were sterile. The complete stratigraphy and a profile of Test Unit 1 is presented in Appendix 3 and Figure 3-12a.

Historic material from Test Unit 1 was confined to Level 1, and consisted of two artifacts. Prehistoric material was more abundant, but not dense, in this level, and in Levels 2 and 3. In each level, about a dozen flakes were recovered. All three of the upper levels were mottled in appearance and the fill of Level 1 showed distinct laminations. At the base of Level 3, a distinct change to a dark yellowish-brown clay loam with less mottling occurred. This break coincides with the base of the cultural deposits, and may represent an ancient land surface. Several striations mar the surface of the dark yellowish-brown clay and may be the result of recent root-plowing.

Test Unit 2 was located north of the road, close to Auger Hole 8. The survey crew had noted a concentration of fire-cracked rock in this area, and the results of augering indicated some depth to the cultural deposits in this area. Appendix 3 presents the

- Figure 3-9. Lithic tools from the surface of 41DN80 (Scale 1:1).
- a. Meserve point fragment.
 - b. Thin quartzite biface.
 - c. Unfinished point, possibly Lange or Yarbrough.
 - d. Chert retouched flake.
 - e. Large quartzite biface.
 - f. Quartzite retouched flake.



a



b



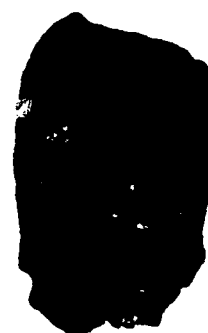
c



e

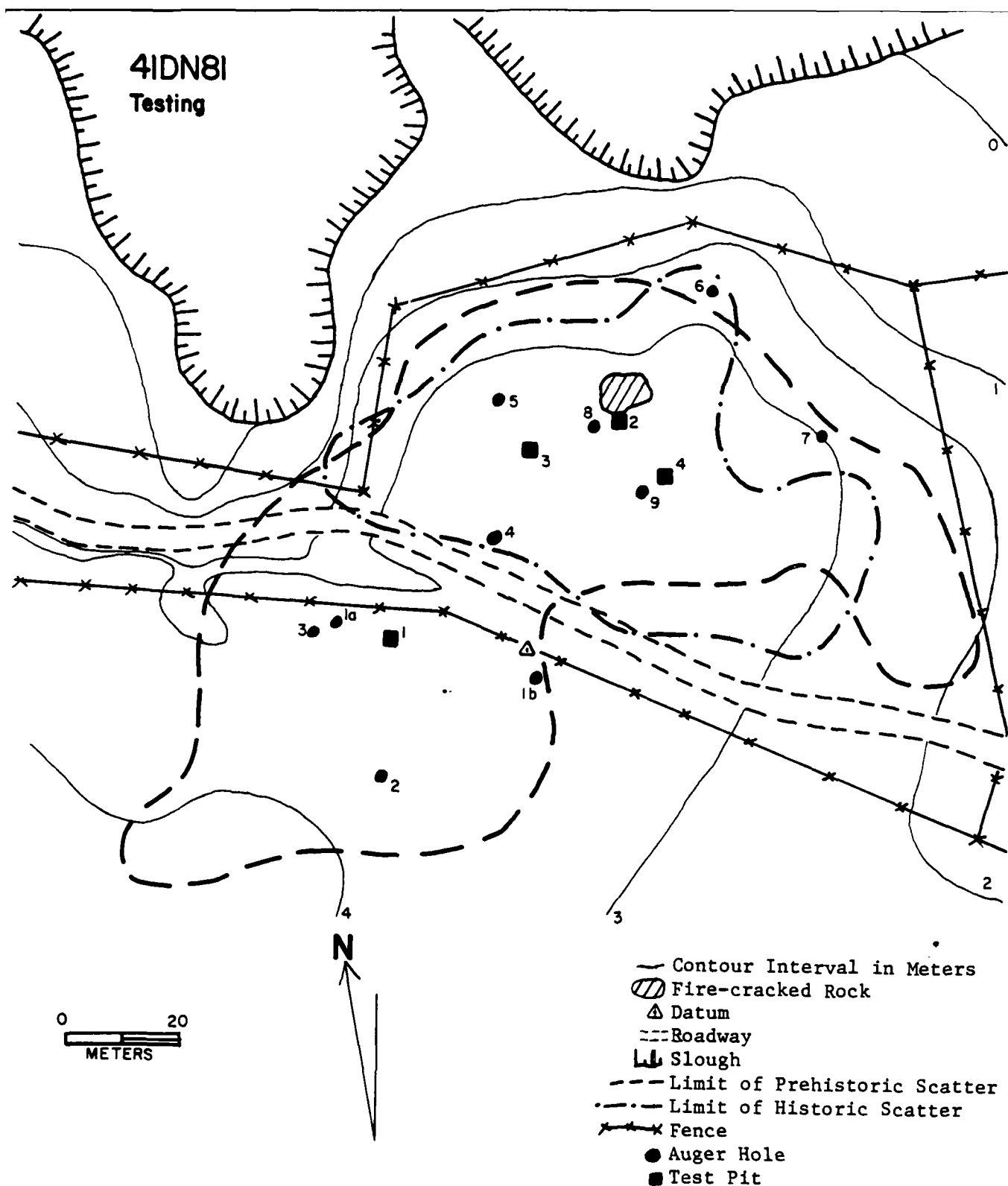


d



f

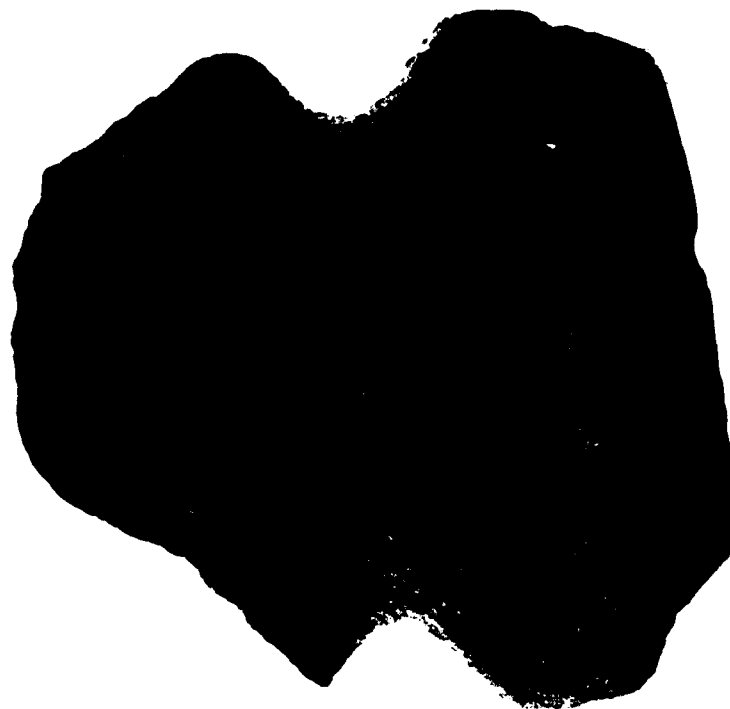




- Figure 3-11. Surface artifacts from 41DN81 (Scale 1:1).
- a. Small Edgewood point fragment.
 - b. Full-grooved axe fragment.
 - c. Fresno point.
 - d. Quartzite endscraper fragment.
 - e. Quartzite point fragment, possibly Gary.
 - f. Ellis point fragment.
 - g. Chert convergent sidescraper.



a



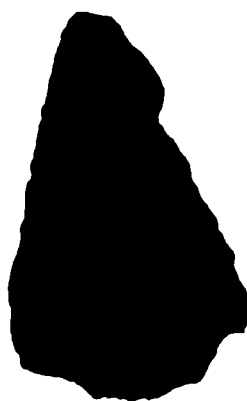
b



c



d



e



f



g



stratigraphy for Test Unit 2, while Figure 3-12b shows both the natural stratigraphy and the excavation levels. The test pit was excavated to a depth of 50 cm before it was terminated at the request of the lessee. Unfortunately, at that point, the base of the cultural deposits had not been reached and no opportunity was available to auger below the base of the unit.

A great deal of historic material was recovered from the upper two levels of this unit, quite a bit less from Level 3 and none from Levels 4 or 5. Lithic material was consistently present in all five levels, with a relatively large quantity of shell present in almost all levels. Finally, large numbers of fire-cracked rock were observed in all levels. The largest concentrations of fire-cracked rock were in Level 1 and Level 3. The presence of relatively large amounts of fire-cracked rock, shell, and bone, as well the apparent depth of the cultural deposits and the lack of any discernible ancient land surface suggest that this portion of the site was a prehistoric trash midden.

Test Unit 3 was placed in this same area. The unit was excavated in two levels. Level 1 was 10 cm thick and contained both historic and prehistoric artifacts. Level 2 was 20 cm thick and contained no artifacts. The stratigraphy of Test Unit 3 is summarized in Appendix 3.

Test Unit 4 was placed north of the road at the crest of the knoll near Test Unit 2. The unit was excavated in five 10 cm levels and the stratigraphy was similar to that in Test Unit 2 (Figure 3-12b). Prehistoric material was recovered from all five levels, but the bottom half of Level 5 was sterile. Historic material was observed only in Levels 1 and 2. The upper dark yellowish-brown loam in Test Unit 4 contained both historic and prehistoric remains, whereas the lower dark yellowish-brown loam contained only prehistoric material. The stratigraphy of Test Unit 4 is summarized in Appendix 3.

Artifacts (Tables 3-4 and 3-5)

From these tables it can be seen that there is a large proportion of chert interior flakes. This indicates that a relatively high amount of tertiary chert working occurred on this site. The projectile points recovered from this site strongly suggest a Late Archaic occupation. The point types recovered from the surface include Gary, Ellis, Edgewood, and Fresno. A Yarbrough was recovered from Level 1 of Test Unit 3 and another Ellis came from Level 2 of Test Unit 4 (Figure 3-13). All the diagnostic points, except the Fresno, are Archaic in age. The Fresno point was a surface find and probably does not date the buried deposit.

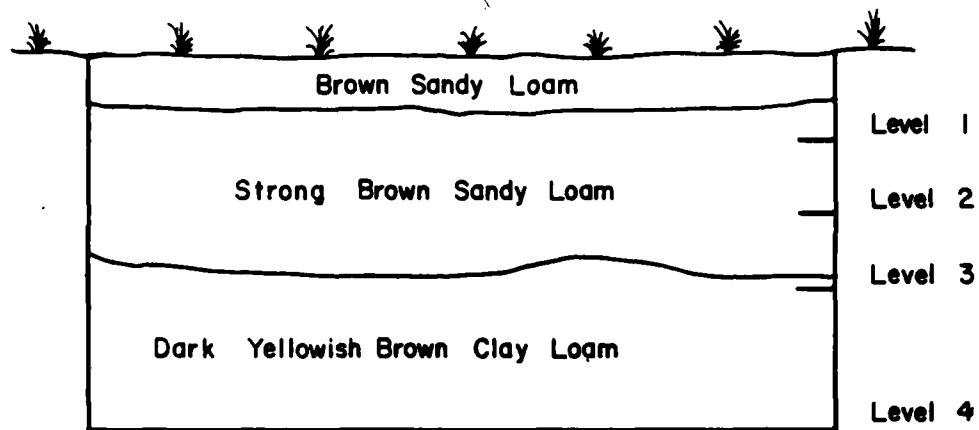
In addition to the above mentioned artifacts, 492 pieces of shell, 66 pieces of fire-cracked rock, 7 pieces of bone, and 9 pieces of non-diagnostic lithic shatter also were recovered.

The historic assemblage is composed of 454 artifacts. Only 12 artifacts were recovered from the surface or the auger tests. Of the entire inventory, 13% represents ceramics, 61% glass, and 25% metal. Earthenware accounts for over 10% of the total, and bottle glass another 58% of the artifacts recovered. Wire nails and hinge fragments each comprise about 7% of the total, and unidentifiable metal fragments make up another 10%.

The assemblage also includes the following household items: one spoon handle fragment, one snap, two bolts, one garter hook, one metal nut, two bullet cartridges, and one 2-hole plastic button. In addition, three datable ceramic maker's marks were

a. 41 DN 81 - Test Unit 1

South Profile



0 10 20 cm

b. 41 DN 81 - Test Unit 2

West Profile

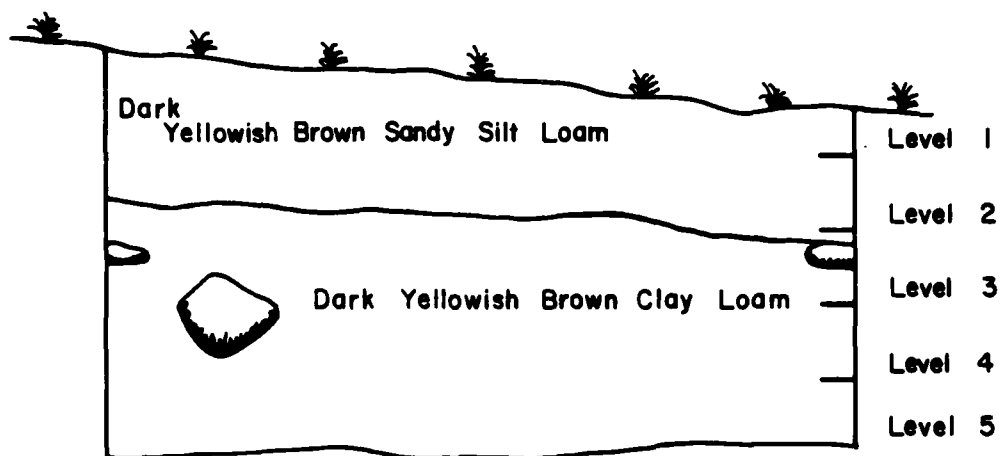


Figure 3-12. Excavation profiles of Test Units 1 and 2, 41DN81.



Table 3-4.
Prehistoric artifacts recovered: 41DN81

Type	Chert	Quartzite	Other	Total
FLAKES				
Primary	19	16	3	38
Secondary	83	60	7	150
Interior	190	57	22	269
Biface thinning	7	5	1	13
CORES	3	4	2	9
TOOLS				
Bifaces	5	2		7
Hammerstone		1		1
Scrapers	1	2	1	4
Retouched pieces	11	2		13
Perforator	1			1
Projectile points				
Edgewood		1		1
Ellis		2		2
Yarbrough	1			1
Gary			1	1
Fresno	1			1
GROUNDSTONE				
Mano			1	1
Full-grooved axe			1	1
Miscellaneous			1	1
TOTAL	322	152	40	514

identified; they are Turnstall (British, post-1881), Steuben (American, post-1879), and J.G. Meakin (British, 1891-1895).

The historic artifacts indicate the late 1800s. The date of 1890 is substantiated by several diagnostic artifacts including one tool-finished purple lip/neck bottle fragment and a small ceramic scattering. Examination of the ceramics revealed several pieces of decorated white paste earthenware including; two with transfer prints (one flow blue), one mold decorated, one decalcomania, and several with a combination of decorative techniques. Three sherds of Albany and Bristol slip stoneware concur in the 1890-1930 time range.

Summary

Based on testing, the site contains a strong Late Archaic component, with an ephemeral Late Neo-American occupation, overlain by a late nineteenth century occupation. The majority of the site is presently in plowed fields, and some of what is currently not in cultivation appears to have been so in the past. This disturbance has resulted in the mixing of the upper 20 to 30 cm of what is a 50 cm deep deposit. Artifact density is high and is associated with large amounts of shell and fire-cracked rock, with some bone, in the northern half of the site.

41DN82

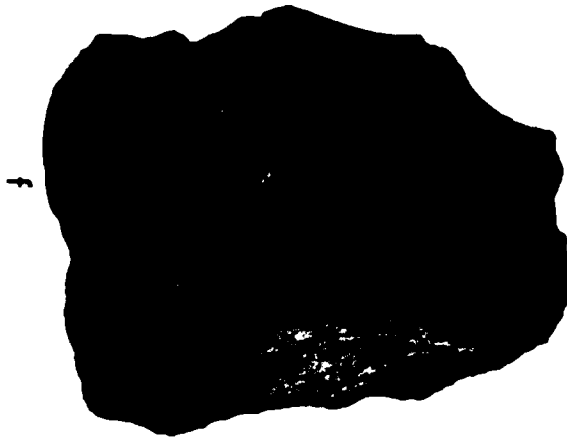
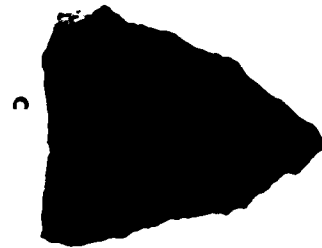
Site 41DN82 is a surface scatter of prehistoric artifacts of unknown cultural affiliation. It was located in a plowed sudan grass field overlooking a slough to the north which flows eastward into the Elm Fork. The site is located 0.5 km west of the Elm Fork at an elevation of about 175 m.

Table 3-5.
Historic artifacts recovered: 41DN81

Type	Surface	Augering	Test Units				Total
			1	2	3	4	
CERAMIC							
Earthenware							
Plain decoration				19	1	18	38
Plain dec. with maker's mark	2						2
Mold decorated				1			1
Flow blue transfer print				1			1
Blue transfer print	1						1
Decalcomania						1	1
Decalcomania/mold dec.						1	1
Mold dec./gilded				1			1
Annular band/mold dec.				1			1
Blue tinted glaze						1	1
Stoneware							
Albany/Glaze				2			2
Bristol/Glaze exterior with							
Albany slip interior						1	1
Porcelain							
Plain				5			5
Mold decorated				1			1
Painted				1			1
GLASS							
Bottle fragments							
Lip/neck							
Tool-finished							
Purple	1						1
Green						1	1
Machine-finished							
Green				1			1
Brown						1	1
Unidentified							
Green						1	1
Body							
Unmarked							
Clear		1	2	46		33	82
Purple				21		3	24
Green		3		70	4	30	107
Brown				24		10	34
Blue-green						5	5
Molded/embossed							
Clear		1				1	2
Purple						1	1
Green				1		1	2
Blue-green						1	1
Base							
Unmarked-purple			1				1
Mold marked/embossed-clear			1				1
Hollowware-press molded							
Window plate						8	8
Lid knob fragment						1	1
METAL							
Wire nail			4	14		12	30
Square nail				5		1	6
Staple				1			1
Wire			1	4			5
Hinge						27	27
Spoon handle		1					1
Snap				1			1
Bolt				1		1	2
Garter hook				1			1
Nut						1	1
Bullet cartridge						2	2
Unidentified			9	19		13	41
OTHER							
Burton							
Plastic, 2-hole						1	1
Mortar	—	2	—	—	—	—	2
TOTAL	4	8	18	241	5	178	434

Figure 3-13. Excavated lithic artifacts from 41DN81 (Scale 1:1).

- a. Edgewood point from Test Unit 4.
- b. Yarbrough point from Test Unit 3.
- c. Biface fragment from Test Unit 4.
- d. Chert biface fragment from Test Unit 4.
- e. Quartzite gouge from Test Unit 2.
- f. Bidirectional, bifacial core from Test Unit 4.
- g. Biface fragment from Test Unit 4.



The site consisted of a very light scatter of cultural debris occurring on the north facing slope of a slight rise. Artifactual debris noted by the survey included chert and quartzite flakes, a biface, a hammerstone, mussel shell fragments, and a fragmentary mammal tooth. On the basis of the surface artifacts and the small size, 41DN82 was evaluated as a microband musselling camp. No recognizable concentrations of artifacts were noted, although on the east end of the site, the scatter appeared to be more dense. The extent of the artifact scatter was about 0.085 ha measuring only 42 m east-to-west and 30 m north-to-south. The soil associated with the site is a dark grey clay loam, specifically Frio silty clay.

Testing Results

Because of the small surface area of this site, as well as its disturbed nature, only three auger holes were used to test the subsurface nature. Unfortunately, the datum pin placed by the survey crew was removed and the auger crew was forced to estimate its former location. As a result, the auger holes were placed about 15 m farther east than planned. Thus, Auger Hole 2 is about 15 m to the northeast of the surface scatter, while Auger Holes 1 and 3 are on the northeastern side of the scatter. However, it is not felt that this error has resulted in an unreliable evaluation of this site.

None of the auger holes contained artifacts, and the matrix from all three holes indicated fairly recent floodplain deposits. The presence of impenetrable conglomerate deposits in Auger Holes 1 and 3 is intriguing, especially because these are from 50 to 100 cm above the level of Auger Hole 2, where such a layer was not found. It seems likely that this conglomerate is the remnant of a former terrace which was eroded and then entirely buried by the later floodplain clays. This would explain the slight rise, or bench on the edge of which 41DN82 is located.

Summary

As noted above, 41DN82 was initially classified as a microband musselling camp. This evaluation was made on the basis of the presence of mussel shell together with a high proportion of interior flakes and biface thinning flakes, as well as the small size of the site. While the sample of surface materials was very small, it is interesting to note the overall resemblance of the surface assemblage of 41DN82 to that observed at 41DN81. It seems likely that the two sites were closely related and duplicated function, although the size of social groups occupying the two sites was presumably different.

While the survey and testing of 41DN82 failed to produce diagnostic artifacts, it is believed that 41DN82 dates to the Late Archaic period, based on circumstantial evidence, mainly the apparently heavy Late Archaic occupation of the entire Lake Ray Roberts area, the heavy utilization of mussels as a food source during this period, and the heavy Late Archaic occupation along the ridge west of 41DN82.

In consideration of the lack of any identifiable preserved deposits associated with 41DN82, together with the very low surface artifact density, it is recommended that no further work be undertaken at this site.

41DN101

Site 41DN101 is a small prehistoric site situated in a plowed field on the edge of the T1 terrace of the Elm Fork at about 179 m elevation. The site is located 0.5 km west of the Elm Fork, and is immediately southwest of a slough which flows east into the Elm Fork.

The site consists of a moderately dense surface scatter of artifacts including quartzite and chert flakes, several projectile point bases, at least one groundstone fragment, a hammerstone, bifaces, fire-cracked rock, and numerous mussel shell fragments. Based on site size and artifact assemblage, the site initially was typed as a macroband base camp with primary emphasis on mussel collecting. The artifacts appear in higher frequency near the top of a knoll, and become less dense near the bottom (see Figure 3-14). The area of the artifact scatter covers 0.13 ha and is 40 m north-to-south by 50 m east-to-west. The site is located on dark brown Frio silty clay.

Testing Results

Subsurface testing on 41DN101 involved two 1 x 1 m excavation units and nine auger holes placed along the eastern and western margin of the artifact scatter. The results of this augering are presented in Appendix 3. Five of the auger holes revealed subsurface artifacts. Auger Holes 9 and 3 reached a maximum depth of 62 cm and 100 cm, respectively. Auger Hole 7 could have gone deeper than 43 cm, but a rocky silt matrix was encountered. Most of the artifacts collected were mussel shells and flakes.

Test Unit 1 was placed in the center of the artifact scatter approximately 34 m southwest of the datum (Figure 3-14). The artifactual material recovered consisted mostly of quartzite flakes, chert flakes, and mussel shell. Burned rock was found in large quantities in Levels 1, 3, and 4, but no true concentration was noted. A small concentration of mussel shell was noted in the southwest corner of Level 3. The majority of artifacts from this unit were removed from Level 1 and the sample diminished with each level. Levels 4 and 5 yielded mussel shell and burned rock but very few lithic artifacts. Test Unit 1 was terminated after reaching a gravel layer in the northwest quadrant of Level 6. For a summary of the stratigraphy of this unit, see Appendix 3. The northern profile of Test Unit 1 is shown in Figure 3-15.

Test Unit 2 was placed about 36 m southwest of the datum. Although Auger Hole 3 produced no artifacts and Auger Hole 4 yielded artifacts only in the first 19 cm, Test Unit 2 produced artifactual material in every level to a depth of 58 cm. The artifact density of Test Unit 2 was not as high as in Test Unit 1 although the same types of artifact material were encountered: burned rock, quartzite flakes, and chert flakes. The majority were collected from Level 4 including 132 burned rock fragments and 3 complete projectile points. Two of the points are made of grey quartzite and one was of white chert. The excavation crew reported a burned rock feature in the northwest corner of Level 4. It is assumed that the three points were removed from that area. Throughout Levels 2, 3, and 4 the matrix was extremely dark, resembling a midden deposit. The stratigraphy of Test Unit 2 is summarized in Appendix 3, and the west wall profile is shown in Figure 3-16.

Artifacts

The majority of artifacts were lithic debris (Table 3-6). Some of this material appeared to be local quartzite gravels, but a few appeared to be cherts of various types. These cherts are believed to have been derived from gravels of the Antlers Formation to the west of the study area (Skinner et al. 1982). This is suggested in part by the ratio of primary and secondary flakes to interior ones. This ratio visibly indicates that the cores were quite small cobbles.

The majority of flakes resulted from bifacial cobble reduction. Quite a bit of the fine chert had been heat treated, and a considerable amount of fire-cracked rock was recovered. Over 30 fragments of shell and 5 unidentifiable pieces of bone were

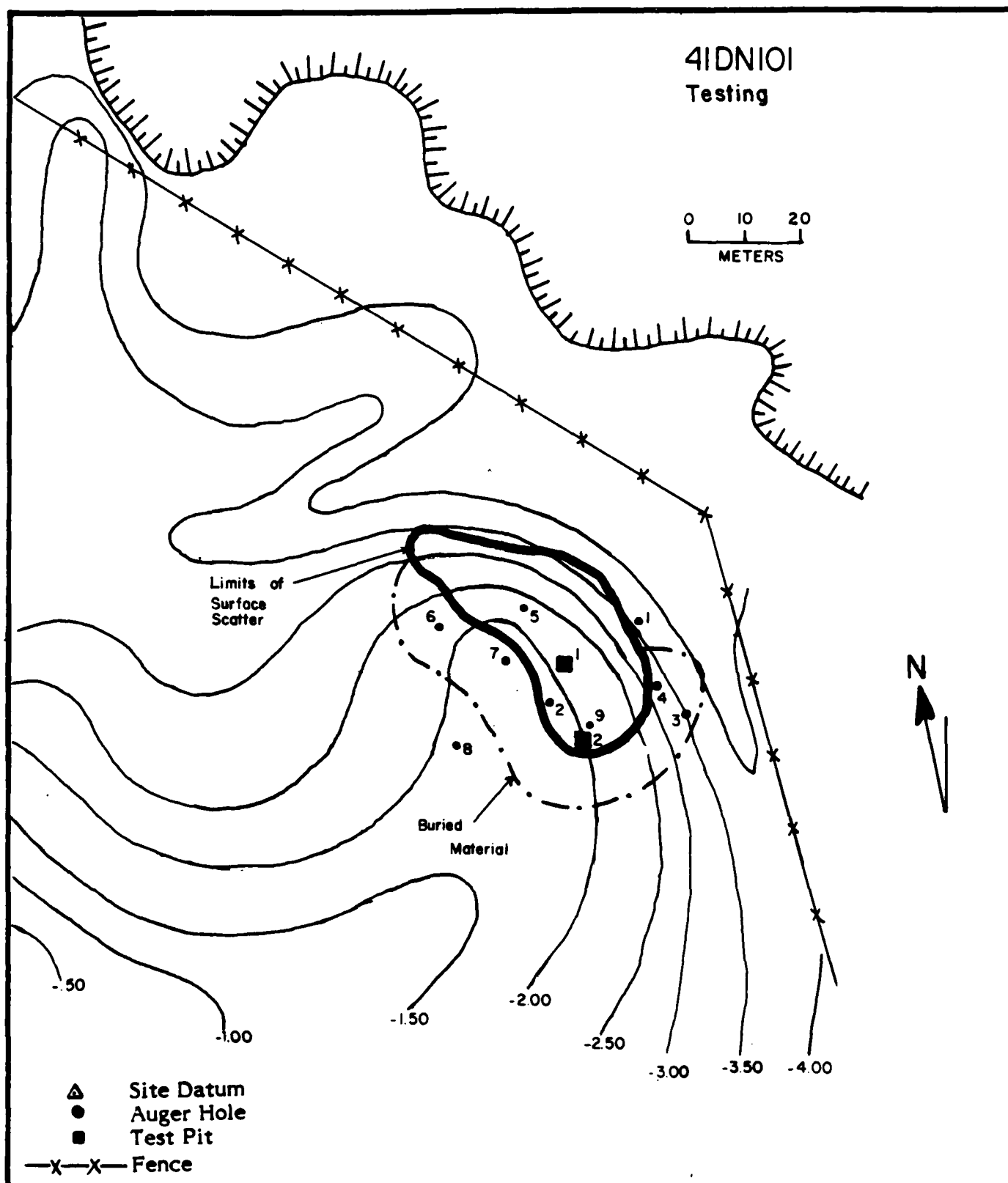
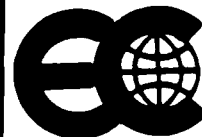


Figure 3-14. Contour map of prehistoric site 41DN101, showing locations of test units.



41 DN 101 - Test Unit 1

NORTH WALL

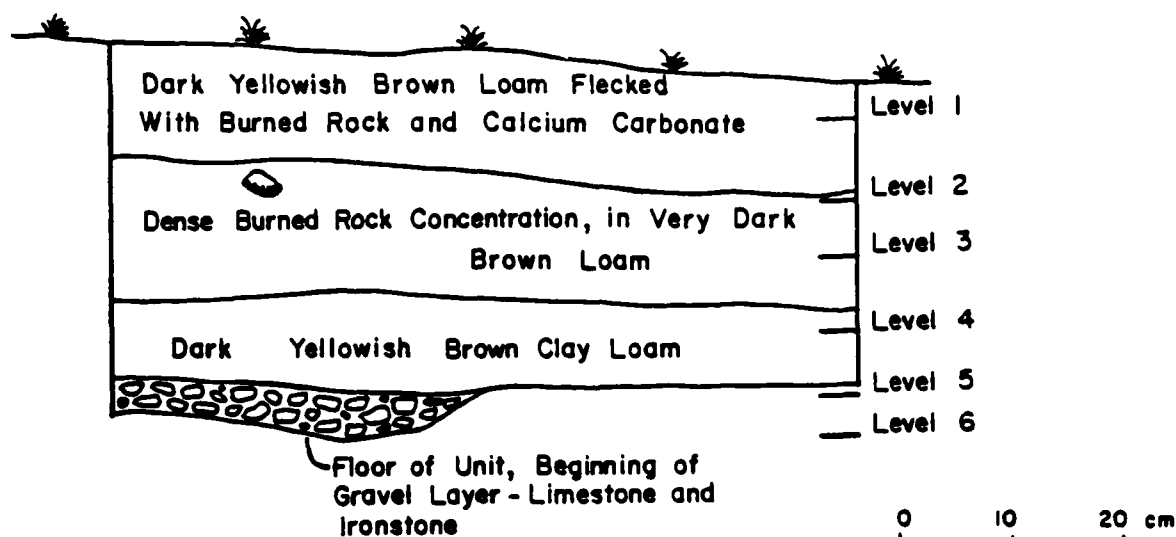


Figure 3-15. Northern profile of Test Unit 1, 41DN101.

41 DN 101 - Test Unit 1

WEST WALL

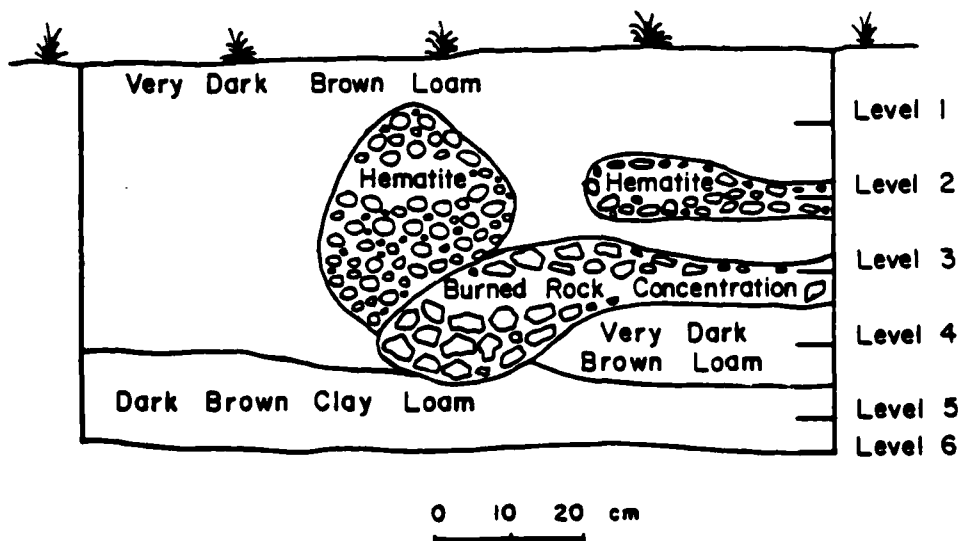


Figure 3-16. Western profile of Test Unit 2, 41DN101.



Table 3-6.
Prehistoric artifacts recovered: 41DN101

Type	Chert	Quartzite	Other	Total
FLAKES				
Primary	7	13	2	22
Secondary	42	34	19	95
Interior	33	21	20	74
Biface thinning	5	1		6
CORES	1	1	2	4
TOOLS				
Retouched pieces	7	1		8
Biface	1	1		2
Drill		1		1
Projectile points				
Edgewood	2	1		3
"Trinity"	1			1
Gary		1		1
GROUNDSTONE				
Mano			1	1
Metate frag.			1	1
Pecked stone			2	2
Miscellaneous	—	—	1	1
TOTAL	99	75	48	222

collected, much of it having been burned. In addition, one mano and five ground or pecked stone fragments were collected (Figure 3-17). The grinding stones were sandstone or limestone. Given the kind and amount of material retrieved from excavations, the site was intensively occupied.

The point inventory suggests a Late Archaic age. Two Edgewood points dating to the Middle to Late Archaic period were recovered from the surface. Another Edgewood point was recovered from Level 4 (30 to 40 cm) of Test Unit 2. This latter point, as well as a "Trinity-like" point (though slightly smaller and more crude in manufacture), and a Gary point were collected from the same context of Test Unit 2. This level was associated with the concentration of fire-cracked rock and may date this event. The "Trinity-like" point resembles the Middle Archaic type in overall form but falls below the Trinity size range. Although a Late Archaic date is indicated, the point inventory suggests an occupation relatively early in the Late Archaic period.

Summary

Based upon the testing of 41DN101, the subsurface deposits appear to be slightly more widely distributed than the surface artifact scatter. The test pits revealed artifactual material to a depth of 45 to 50 cm and, despite the fact that the site has been plowed, an apparent 20 to 40 cm thick occupation horizon with burned rock features and midden can be identified over much of the site. Based on the above considerations, 41DN101 is recommended for nomination to the National Register of Historic places.

Summary of 41DN79, 41DN80, 41DN81, 41DN82, and 41DN101

As was noted previously, these five sites all lie along the edge of the same terrace remnant west of the Elm Fork. Three of the five lie close enough together to be part of the same site area. Of these five sites, testing indicates that two (41DN80 and

- Figure 3-17. Lithic artifacts from 41DN101 (Scale 1:1).
- a. Ellis point fragment from surface.
 - b. Edgewood point fragment from surface.
 - c. Chert drill fragment from Test Unit 1.
 - d. Quartzite point fragment from surface.
 - e. Small "Trinity"like" point from Test Unit 1.
 - f. Unfinished point, possibly Edgewood, from Test Unit 2.
 - g. Unfinished point from Test Unit 2.
 - h. Oval mano from surface.



41DN82) contain no preserved deposits or features, while the other three (41DN79, 41DN81, and 41DN101) contain either preserved deposits, preserved features, or both.

Temporally, occupation of the terrace began during the Middle Archaic period. The best indication for this comes from the surface collection of 41DN80, which contains a Meserve point and an unidentified point which resembles a Lange or Yarbrough but which is unusually large. The small "Trinity-like" points from 41DN79 and 41DN101 are at the lower end of the size range for that type and probably do not date to the Middle Archaic. In fact, the specimen from 41DN79 is actually too small to be a dart point and may date to the Neo-American, which would agree with the rest of the remains from this site.

The Late Archaic period is well represented at 41DN81 and 41DN101, which both appear to have been utilized intensively during this period. It is believed that the occupants of both of these sites were taking advantage of the mussels in the nearby Elm Fork and its tributaries, and were using these sites on a regular seasonal basis. The reliability of this resource probably brought several smaller social groups together during the year, and 41DN81 is certainly large enough to classify as a base camp.

The Neo-American period is represented well only by 41DN79, while 41DN81 produced one Fresno point. If the remains from 41DN79 date to the Neo-American, and if the features at the site represent a circular structure, it is possible that the ridge was occupied by a small group of marginal agriculturalists during the Late Neo-American period. Unfortunately, there is little other evidence for permanent occupation during that period (i.e., no pottery and no agricultural tools), and it is more likely that the area was utilized seasonally for non-agricultural subsistence pursuits.

41DN84

Site 41DN84 is located at the top of a slope of the T1 terrace of the Elm Fork at an elevation of about 186 m. The site is 1.25 km west of the Elm Fork and 0.8 km south of Pond Creek.

The site was recorded as a small, sparse surface scatter of lithic debris including chert and quartzite flakes and a hammerstone (Figure 3-18). Several projectile points were reportedly removed from the site by the landowner, Mr. J. T. Hawk, and fire-cracked rock was noted on the surface in very small quantities. 41DN84 was typed initially as a microband hunting camp on the basis of site size and surface assemblage. Artifacts occur in a higher frequency at the north end of the site. 41DN84 is only 0.11 ha in size, with a north-to-south dimension of 50 m, and an east-to-west dimension of 30 m. The site is situated on reddish-brown Navo clay loam, with some gravel on the surface.

Testing Results

Because of the small size and sparse surface density of 41DN84, only four auger tests and one excavation unit were used to evaluate its subsurface deposits. The location of the site in a tilled garden made it likely that the site was massively disturbed. Auger holes were placed across the site at the four cardinal points (Figure 3-18). None of the auger holes revealed artifacts.

Following this initial auger work, a 1 x 1 m excavation unit was placed approximately 5 m east of Auger Hole 1. Although the auger holes had not produced any artifacts, it was hoped that a test pit could produce some subsurface remains. The few artifacts recovered consisted of charcoal, bone fragments, a few flakes, and a piece of clear

41 DN 84

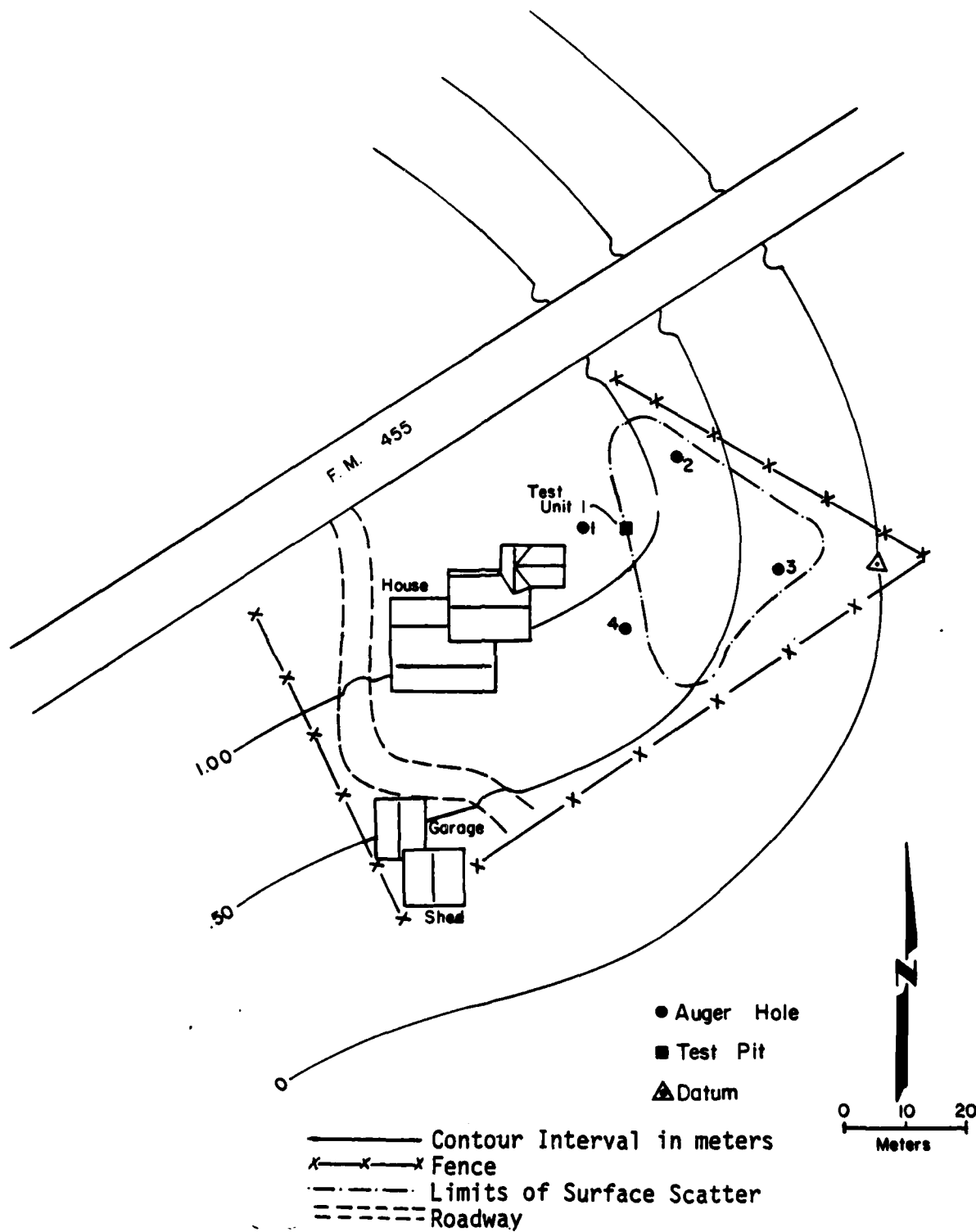


Figure 3-18. Contour map of prehistoric site 41DN84, showing locations of test units.



glass collected from Level 2. Level 3 produced a sterile matrix and a soil change, therefore the unit was closed after completion of this level. A description of the artifacts and stratigraphy of Test Unit 1 is presented in Appendix 3.

The fill of Test Unit 1 consisted of a 10 cm thick layer of disturbed sandy loam directly overlying a dark reddish-brown clay loam with gravel matrix which comprises the sterile terrace deposit. Based on this, it is clear that 41DN84 contains no preserved deposits and no appreciable depth.

Artifacts

One Edgewood point was collected from the site surface. This indicates a Late Archaic date for the site.

Summary

Testing of 41DN84 supports the view that the site is a small, limited activity occupation site dating to the Late Archaic period. A sparse amount of material was recovered from the test pit to a depth of 10 cm, and it is clear that the site is heavily disturbed and has a low artifact density and no in situ deposit. It is therefore considered to have no research potential and it is recommended for no further work.

41DN85

Site 41DN85 is situated on the edge of the first terrace of the Elm Fork at an elevation of about 177 m. It is presently in pasture about 1.25 km west of the Elm Fork of the Trinity River.

The site was recorded as a surface scatter of five interior flakes (three of chert and two of quartzite), and was tentatively typed as a hunting station. The extent of the scatter was only 0.04 ha, being 40 m north-to-south by 20 m east-to-west. The site is situated on brown Bastrop fine sandy loam, and was located through the observation of surface artifacts occurring in gopher backdirt piles.

Testing Results

Because there was believed to be a high likelihood of undisturbed deposits at 41DN85, it was decided to excavate two test pits into the site. Prior to this, however, twelve auger tests were placed in the site in order to evaluate the subsurface deposit and guide the location of the subsequent test pits (Figure 3-19). Appendix 3 presents the results of testing at 41DN85. The tests revealed the subsurface deposits to be largely brown to dark brown sandy loam to clay loam. Auger Holes 1 and 2 went to a depth of 100 cm, but revealed no artifacts. Auger Holes 4 through 9 and 12 reached an average depth of approximately 35 cm due to the compact hardness of the soil.

Despite these unpromising results, a 1 x 1 m test pit was placed in the southeast area of the surface scatter, south of Auger Hole 3. This area contained three of the five flakes noted on the surface, and it was felt to have the highest probability for subsurface material.

Only a single historic artifact was recovered from Test Unit 1. This was a center fire shotgun cartridge of recent date from Level 1. Prehistoric material was found below this to a depth of 70 cm. A small amount of material was found in all levels, except

41 DN 85

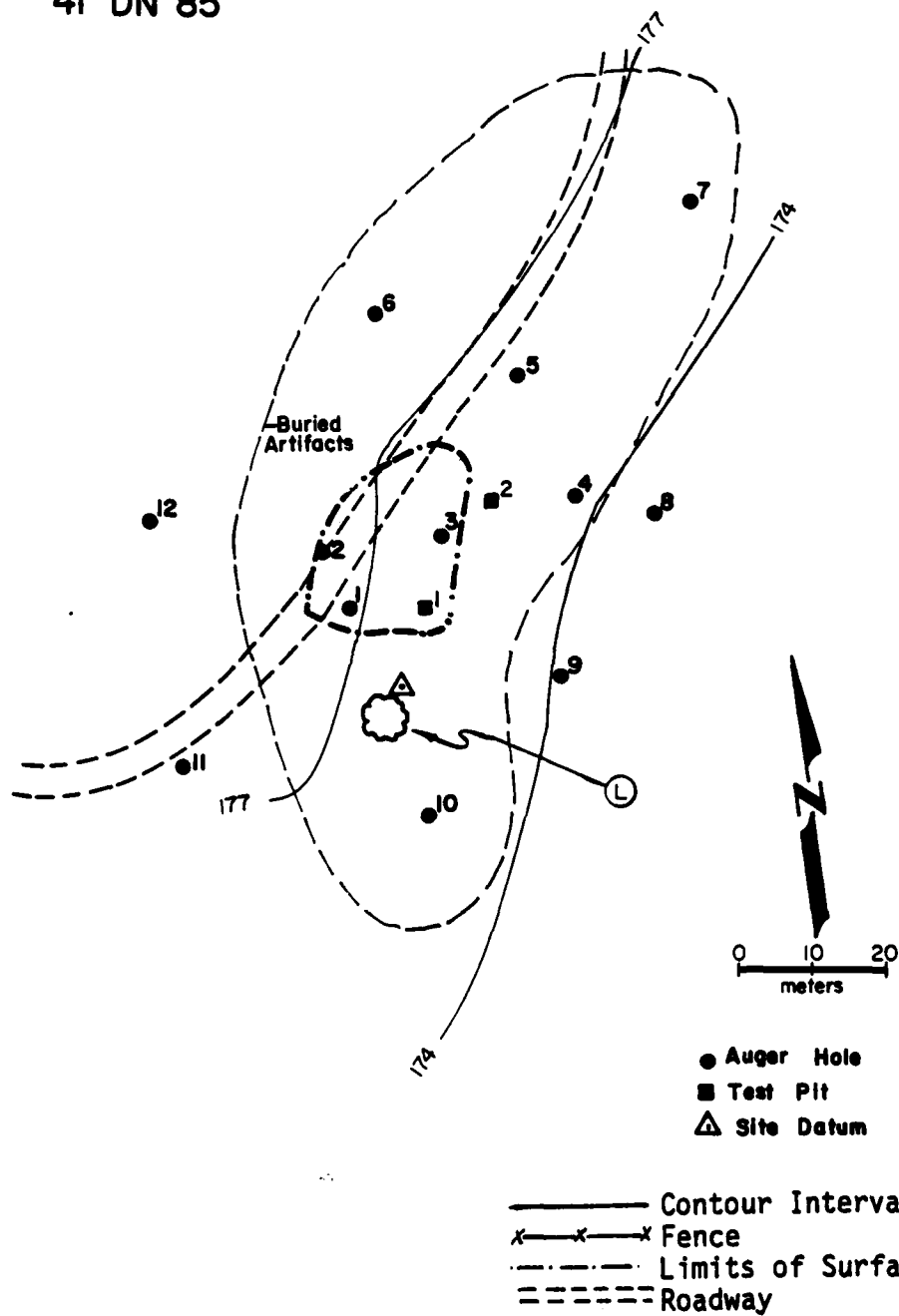


Figure 3-19. Plan map of prehistoric site 41DN85.



Level 8, but the greatest amount of material was found in the upper portion of the dark brown sandy loam deposit--Levels 3, 4 and 5.

Test Unit 2 was placed northeast of Auger Hole 3 and west of Auger Hole 4 in the northeast part of the site. The unit was taken down arbitrarily in four 10 cm levels to a depth of 40 cm. Very few artifacts were collected in the upper three levels and Level 4 was totally sterile. One historic wire nail was collected in Level 1.

Artifacts

The majority of artifacts retrieved from 41DN85 came from Test Unit 1. Only four flakes were recovered from Test Unit 2. The majority of the flakes collected are of a local quartzite or coarse chert. The ratio of interior flakes to primary and secondary flakes suggests that either (1) large cobble cores were used, or (2) preforms and blanks were brought to the site area. This latter suggestion may be supported by the presence of one Gary point preform collected from Level 7 (60 to 70 cm) of Test Unit 1. Although no definite diagnostic material was recovered, the biface suggests a Late Archaic to Neo-American date. Except for three bone fragments, little additional artifactual debris was collected. The prehistoric artifacts recovered from 41DN85 are presented in Table 3-7. The two historic artifacts, a wire nail and a shotgun cartridge, were found on the surface and represent recent historic activity.

Summary

Based upon the testing of 41DN85, the buried deposits appear to be much larger than the sparse surface scatter would indicate. The augering data show the site to be about 0.44 ha in area (123 m north-to-south by 48 m east-to-west) and up to 35 cm deep in places. The two test pits show a high degree of differential artifact density across the site, apparently the result of the aboriginal occupation since no evidence of heavy disturbance was found below 10 cm.

In general, 41DN85 appears to be a very well-preserved example of a Late Archaic hunting station (Skinner et al. 1982), a type of site which normally is destroyed by later historic activities (41DN84 is an excellent example of such destruction). The degree of preservation at 41DN85 may not be matched elsewhere in the Lake Ray Roberts area, and largely for this reason, it is recommended for nomination to the National Register of Historic Places.

41DN89

Site 41DN89 was interpreted as a prehistoric lithic procurement site that was situated on top and on the east-facing slope of the T2 terrace of the Elm Fork at about the 201 m contour. The site is situated 0.5 km west of a small intermittent drainage and 4.9 km west of the Elm Fork.

The site was recorded as a sparse scatter of quartzite lithic debris, largely in the form of primary flakes, lithic shatter, and nodules. Two artifact concentrations define the site limits (Figure 3-20). Both of the areas contain the same types of cortex flakes and battered nodules, and each may represent a separate utilization of the area. The site area is about 0.13 ha, and the site is 80 m northwest-to-southeast by 28 m northeast-to-southwest. The soil associated with the site is a brown Navo clay loam with heavy pebble and gravel inclusions.

Table 3-7.
Prehistoric artifacts recovered: 41DN85

Type	Chert	Quartzite	Other	Total
FLAKES				
Primary		6		6
Secondary	12	5		17
Interior	34	8	2	44
TOOLS				
Retouched pieces	2			2
Projectile points				
Gary	—	1	—	1
TOTAL	48	20	2	70

Testing Results

Investigations at 41DN89 were planned initially to consist of only two auger holes, one in each of the surface concentrations, for the purpose of evaluating the subsurface nature of the site. However, this procedure was modified in the light of two considerations. The first of these was the sparse nature and small area of the site. This made it difficult to exactly relocate the artifact concentrations within the general gravel deposit which covers this part of the second terrace. The second factor was the high density of gravel which made use of the auger extremely difficult. This effectively limited the depth to which the auger could reach, and resulted in several broken auger pins.

In effect, then, the relocation difficulties seemed to require more than two subsurface tests, but the dense gravel precluded the use of the auger. A compromise was reached which involved the placement of six shovel tests around the site, in addition to the two auger tests. The shovel tests, in fact, were able to reach to a greater depth than the auger, although they also were limited by the density of the terrace gravels (Figure 3-20). Neither the auger holes nor the shovel tests revealed any buried cultural material.

Summary

Functionally, 41DN89 seems to be a lithic procurement site at which the initial selection and reduction of local quartzite nodules occurred. The worked material consisted of varying types of quartzite, but all of it was characterized by the same shade of brown cortex, suggesting initial raw material selection was made on the basis of cortex coloration.

Based on the tests, it seems clear that 41DN89 is entirely a surface site. Based on this, plus the low surface density of artifacts, it is recommended that no further work be done at this site.

41DN98

Site 41DN98 is a prehistoric lithic procurement site located on an eroding east-facing edge of the T1 terrace above Isle du Bois Creek. The site is located 0.8 km east of Isle du Bois Creek at about 187 m elevation.

41 DN 89

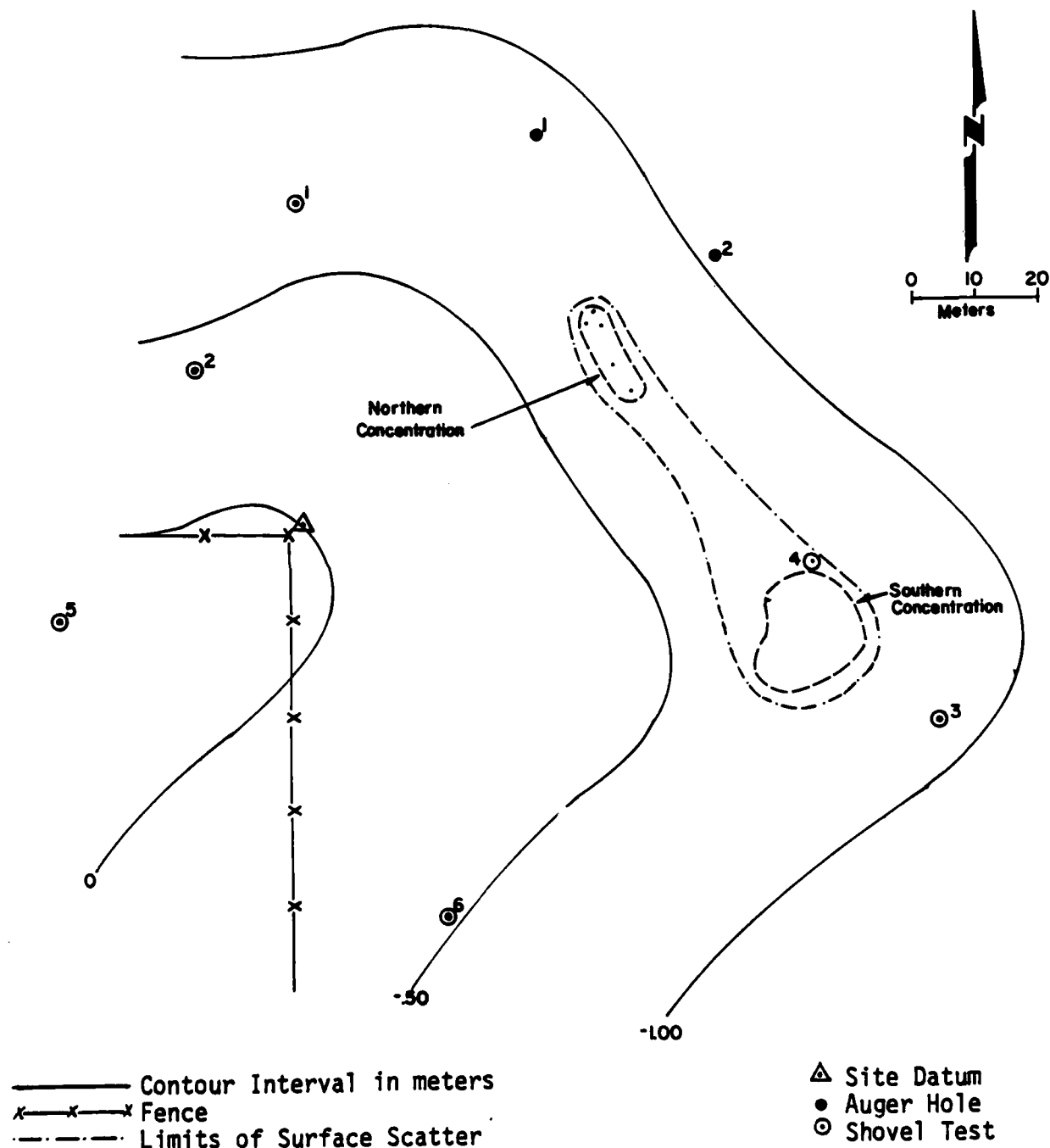


Figure 3-20. Contour map of prehistoric site 41DN89, showing locations of test units.



The site consists of a sparse scatter of about 20 quartzite flakes and at least 1 core in an area of about 0.17 ha, being 59 m north-to-south by about 40 m east-to-west (Figure 3-21). The site is situated amid scattered bushes and mesquite trees in a small clearing where the soil, an Aledo association sandy loam, is undergoing sheet and channel erosion.

Testing Results

Subsurface testing of 41DN98 included three auger holes. No buried cultural material was found in any of the auger holes.

Summary

The auger tests indicate that, like 41DN89, the site is entirely confined to the surface. The artifact inventory consists only of primary decortification flakes of quartzite, plus a single quartzite core. A quarry and primary workshop are the best interpretation for the function of 41DN98.

Unfortunately, the lack of diagnostic material from 41DN98 severely limits the usefulness of the site for clarifying prehistoric lithic technology, despite a relatively dense scatter of surface material. Therefore, it is recommended that no further work be undertaken at this site.

41DN99

Site 41DN99 is a very large surface scatter of prehistoric lithic debris occurring on a low remnant of the first terrace of Isle du Bois Creek at about 177 m elevation. The site was recorded as a widespread surface scatter of quartzite and chert lithic debris including primary, secondary, and interior flakes, at least one core, two scrapers, two non-diagnostic projectile point fragments, a drill fragment, a chopper and a biface. It was typed initially as a microband seasonal camp, believed to have resulted from a series of overlapping seasonal reoccupations of the same terrace.

The site is approximately 2.6 ha in area, covering 320 m north-to-south by 100 m east-to-west (Figure 3-22). The soil associated with 41DN99 is a brown, Bastrop fine sandy loam which is covered by short-to-medium length grass. The area on which the site is located is presently used for pasture. Some terracing had been done in the site area, but in general it seems that erosion and disturbance to the site have been minimal.

Testing Results

The first step in testing 41DN99 involved the drilling of 16 auger holes. Because of the large surface scatter, the large number of tests was used to adequately evaluate the size and depth of the site. The results of this augering program are presented in Appendix 3.

Nine of the tests contained cultural material, while Auger Hole 9 contained charcoal. Maximum depth of cultural material below the surface ranged from 20 cm on the higher areas, to as much as 140 cm in the lower areas on the southeast margin of the site. No particular portions of the site showed a greater density of material than any others, except for Auger Hole 8. In general, the distribution of artifacts recovered from the auger holes seemed to follow the horizontal distribution of the surface material.

41 DN 98

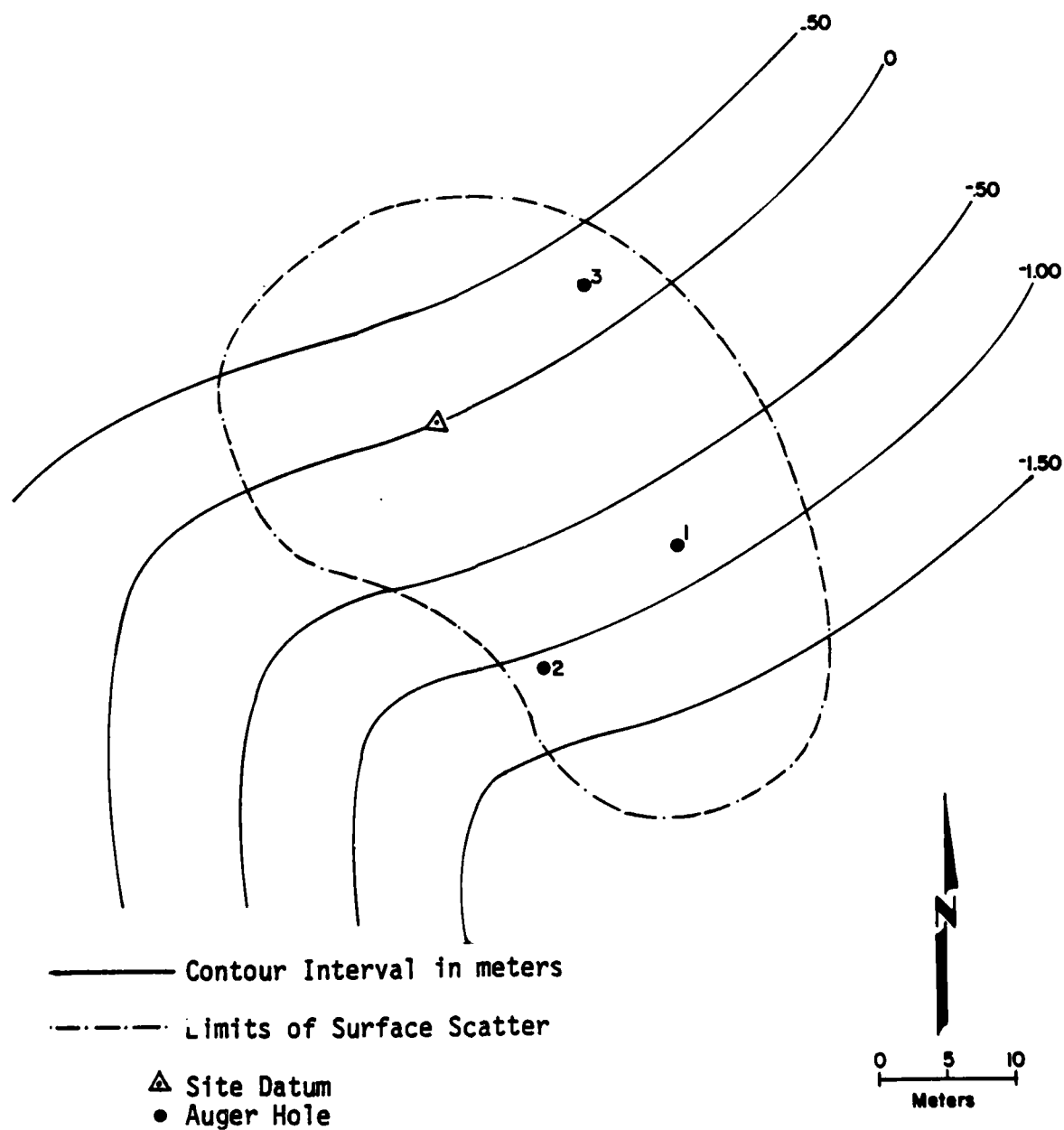


Figure 3-21. Contour map of prehistoric site 41DN98, showing locations of test units.



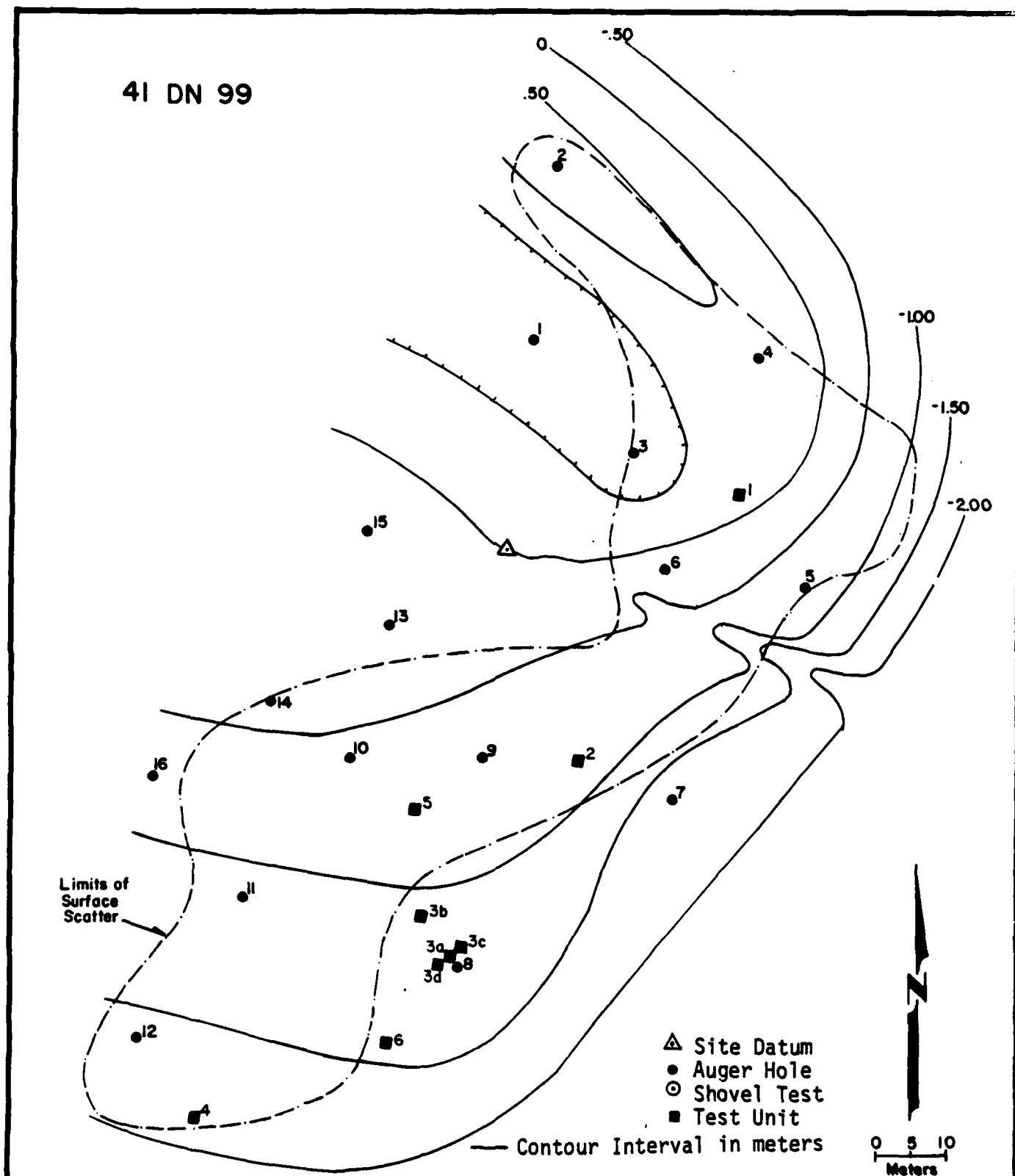


Figure 3-22. Contour map of prehistoric site 41DN99, showing locations of test units.



Based on the results of augering, six 1 x 1 m test pits were dug to maximize both artifact and information recovery. Before the completion of testing, three more 1 x 1 m test pits were added. The first six tests were located to cover the northern and southern parts of the site, as well as the higher ground, and the lower areas close to the creek which seemed to have greater depth. The last three test units, 3b, 3c, and 3d were associated with Test Unit 3 and were excavated to increase artifact sample and to locate features indicated by a magnetometer anomaly (see Appendix 2).

Test Unit 1 was located in the northern part of the site. It was placed between Auger Holes 4, 5, and 6, which had all contained subsurface material. The first two levels of this pit contained artifactual material and were excavated in 10 cm levels. Level 3, an arbitrary 20 cm level was entirely sterile, as were the deposits beneath it which were augered to a depth of 1.6 m. For a detailed description of Test Unit 1 stratigraphy, see Appendix 3.

Cultural material in this part of the site is confined to the top 15 cm below ground surface. At least part, if not all, of the deposits in this area are within the plow zone.

The stratigraphy of Test Unit 1 agrees basically with that in each of the three auger tests around it. In addition, the artifactual material in Auger Hole 4 is limited to the top 20 cm of fill, as is the material in the test pit. For these reasons, it is believed that the two flakes which were recovered from the lower levels of Auger Holes 5 and 6, got there through vertical displacement.

Test Unit 2 was located in the central portion of the surface scatter. It was placed close to Auger Hole 7, but farther west, toward the center of the artifact scatter. A description of the stratigraphy associated with Test Unit 2 is presented in Appendix 3. Only a single flake was recovered from Level 1 of this unit, and the bulk of the deposit was sterile.

Based on this test, it is apparent that the cultural deposit in the higher portions of the central part of the site is shallow, with a low artifact density. The cultural deposits in this area are apparently in the plow zone and probably heavily disturbed.

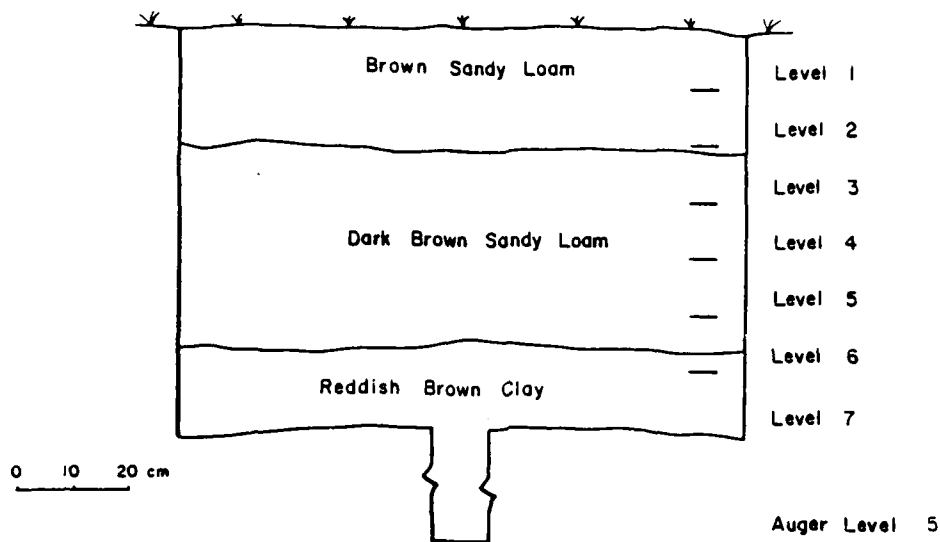
Test Unit 3 was placed on the southeastern margin of the site, very close to Auger Hole 8. This was the auger test which had contained artifacts to a depth of 140 cm. The test pit was excavated to 80 cm, and was augered an additional 1 m. Cultural material was recovered from all levels of the test pit, with the greatest amount of material from Levels 3, 4, and 5. The stratigraphy of Test Unit 3 is listed in Appendix 3, and is illustrated in Figure 3-23. Three projectile point fragments were recovered from Unit 3, and have been typed tentatively as Harrell, Pedernales, and Scallorn. The Harrell point fragment was recovered from Level 1. The Pedernales (also a fragment) and the Scallorn were recovered from Levels 3 and 5, respectively.

Harrell points generally are considered to be Late Neo-American in date. Pedernales points also also been found associated with Scallorn points in what may be an Early Neo-American context elsewhere. The fact that the Harrell fragment was recovered from the brown sandy loam deposit, while both the Pedernales and Scallorn were recovered from the deposit of dark brown sandy loam shows Late Neo-American material overlies Early Neo-American in this portion of the site.

Test Unit 3b was positioned 15 m northwest of Test Unit 3 in an attempt to further examine the intensity of occupation near Test Unit 3 and examine an apparent magnetic anomaly around Test Unit 3 (see Appendix 2). Test Unit 3b was excavated in five 10 cm

41 DN 99 - Test Unit 3

West Profile



41 DN 99 - Test Unit 3d

NORTH WALL

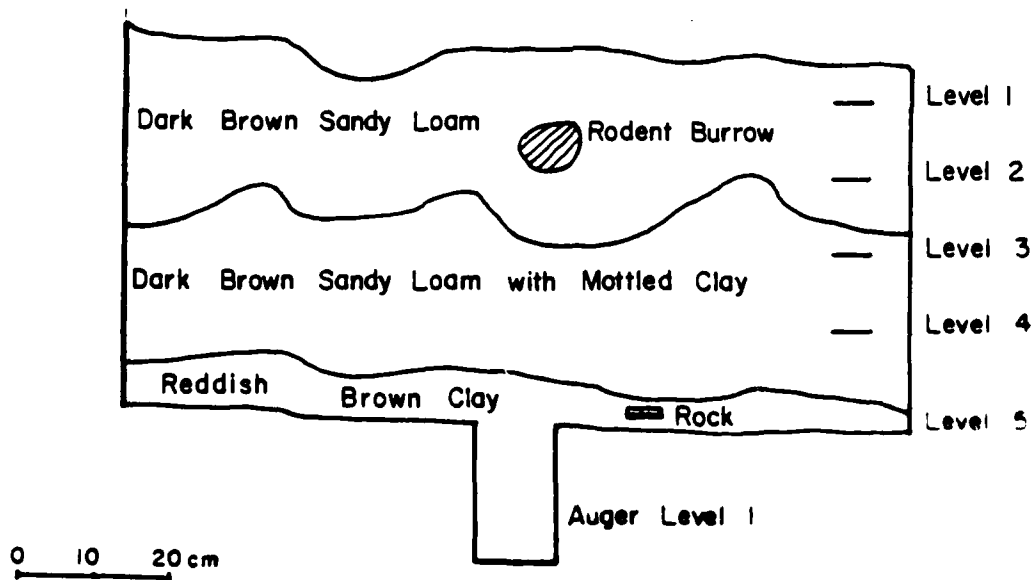


Figure 3-23a. Western profile of Test Unit 3, 41 DN 99.

Figure 3-23b. Northern profile of Test Unit 3d, 41 DN 99.



AD-A128 598

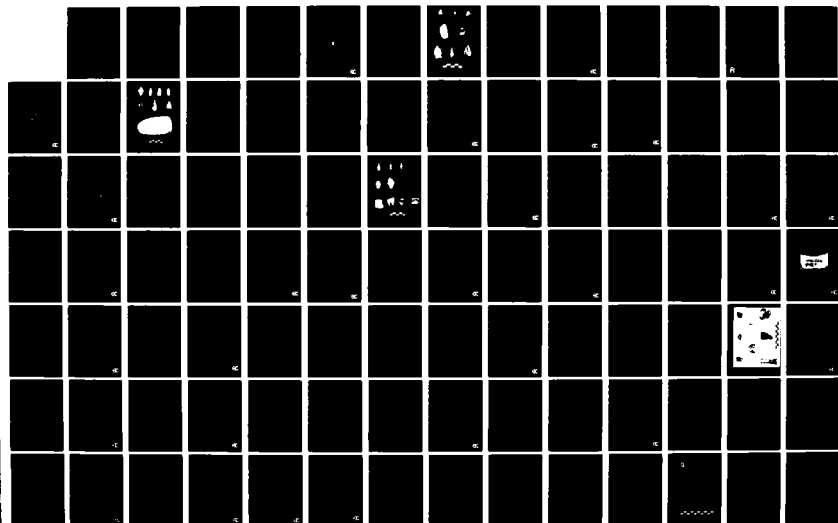
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CONSTRUCTION AREA TE. (U) ENVIRONMENT CONSULTANTS INC
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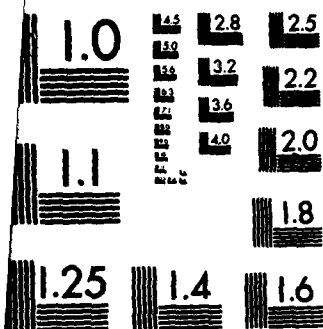
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levels, all of which yielded artifacts. The unit was partially water screened for botanical remains, but no identifiable remains were noted. Only the basal reddish-brown clay level produced less than 20 flakes. This level, Level 5, yielded one small flake retrieved during water screening.

The stratigraphy of Test Unit 3b (Appendix 3) is like that noted upslope in Units 1, 2 and 5. Most of the artifacts were associated with a dark brown sand and clay. The one flake recovered from the reddish-brown clay is believed to have migrated from above. The soil profile and artifact inventory suggest that the northern limits of the most intensively occupied area of the site has been reached.

Test Unit 3c was positioned northeast and immediately adjacent to Test Unit 3. This unit was excavated to further augment the artifact sample and test for the magnetic anomaly, but only the upper 10 cm of brown sandy loam was removed because of time limitations. The artifact inventory from this level included over 50 flakes and an Ellis point fragment. A portion of the level was water screened and, although botanical remains were absent, 16 of the flakes collected were retrieved using this more precise collecting technique.

Test Unit 3d was located southwest of and immediately adjacent to Test Unit 3. Like the previous test, this unit was positioned to increase the artifact sample as well as to investigate the precise location of a magnetometer anomaly. No evidence of the anomaly was discernible from any of the test units. The unit produced artifact bearing deposits to a depth of 50 cm. Five 10 cm levels were dug. An auger hole was excavated an additional 20 cm, but produced no artifacts.

The stratigraphy of Test Unit 3d resembled that of Test Unit 3b, except that the upper loam was deeper in Test Unit 3d. The presence of a Fresno point fragment from Level 2 indicates a Late Neo-American date and adds further justification to the suggestion that the site is stratified. The stratigraphy of Test Unit 3d is summarized in Appendix 3 and the north profile is shown in Figure 3-23.

Test Unit 4 was placed on the southern margin of the site, close to Auger Hole 12. This auger test contained four flakes in the top 20 cm, and one flake at 60 to 80 cm. Although it was believed that the deep flake had been displaced by the auger, the concentration of flakes in the top 20 cm made an occupation horizon at that level almost certain. Fifty centimeters of fill was excavated by hand, and the pit was augered an additional 1 m. The stratigraphy for Test Unit 4 is presented in Appendix 3.

Cultural material from this test consisted largely of flakes, although one projectile point base was recovered from Level 1. This base appears to have belonged to a Gary point. The greatest amount of material was recovered from the first two levels, with a single flake recovered from Level 3. The deposits below Level 3 are sterile. The cultural deposits in this area are limited to the surface brown sandy loam.

Test Unit 5 was placed in the south-central portion of the site, upslope from Units 2 and 3. Auger Holes 10 and 14 had indicated the presence of subsurface material in this area from 20 to possibly 40 cm below ground surface. Test Unit 5 was excavated to a depth of 40 cm, and was then augered an additional 1 m. The stratigraphy is presented in Appendix 3.

Twenty-four flakes were recovered from the top two levels within a brown sandy loam. The matrix below this was reddish-brown clay, and then yellowish-red sandy clay; both

were sterile. Thus, as was the case for Units 1 and 4, the cultural horizon in Unit 5 was confined to the upper 15 to 20 cm.

Test Unit 6 was placed about 15 m southwest of Unit 5. This unit was excavated in order to increase artifact sample sizes and to clarify the stratigraphy in the southeastern portion of the site. Unit 6 was excavated to a depth of 70 cm, at which point sterile deposits were encountered. The stratigraphy for Test Unit 6 is presented in Appendix 3, while the western profile of the unit is shown in Figure 3-24.

The stratigraphy in Unit 6 is more complex than in Unit 3. Relatively large amounts of material were found in Levels 1, 2, 3, and 5. One Scallorn point was recovered from Level 2, and may have originated from the greyish-brown sandy loam. If this is the case, the light brown sandy loam overlying the greyish-brown sandy loam may duplicate the stratigraphy in Unit 3.

While the distinction between the upper brown and the greyish-brown sandy loam in Unit 6 is tentative, there definitely is a cultural break between the greyish-brown and the brown sandy loam. The number of flakes drops in Level 4 and then picks up again in Level 5. In addition to this, the proportion of quartzite to chert flakes changes from approximately 3:1 in Level 2 to close to 1:1 in Levels 3 and 4, to 11:1 in Level 5 and 6:1 in Level 6. Despite the unfavorable sample sizes, this suggests a shift in raw material utilization through time. Unfortunately, no other diagnostic material was recovered from Unit 6. However, the surface find of an Ellis point within 4 m of Unit 6 may indicate a Late Archaic occupation in this area.

Artifacts

The majority of the artifacts consisted of lithic debris. Most of this material appeared to be local quartzites from gravel deposits. A varying proportion was composed of various types of fine, translucent cherts, but almost all of this material appeared to come from chert gravels presumably originating in the Antlers Formation to the west.

The majority of the flakes were the result of bifacial cobble reduction, with one flake possibly coming from a bipolar core. In addition, one cobble may have been broken using a bipolar technique. Quite a bit of the fine chert had been heat treated, but very little fire-cracked rock was present. Table 3-8 lists the artifacts recovered from 41DN99.

The only temporal diagnostics collected from the site were projectile points (Figure 3-25). The stratigraphic positions of the points suggest a stratified, two component occupation. As asserted above, there appears to be a correlation between the upper light-colored sandy loam and the Late Neo-American points, as well as between the underlying dark-colored sandy loam and the Early Neo-American points.

In an attempt to further examine this hypothesis, the artifact inventory was separated by the above matrix distinction. Those levels found to span both soil horizons were not entered in the analysis. Test Unit 3 was isolated from the remainder of the artifact inventory to see if the same artifactual tendencies discernible in the entire site assemblage could be reproduced in the one excavation unit which most clearly seemed to reveal the stratified artifactual distinction.

The results of the examination were somewhat inconclusive. In terms of the types of flakes and tools collected, there is little difference in the percentages within and between the four categories (the categories being the upper loam in Unit 3, the lower

Table 3-8.
Prehistoric artifacts recovered: 41DN99

Type	Chert	Quartzite	Other	Total
FLAKES				
Primary	3	5	9	17
Secondary	98	64	43	205
Interior	124	57	25	206
Bifacial thinning	5	4	1	10
CORES	1	7		8
TOOLS				
Endscrapers	1	1		2
Retouched pieces	6	1	1	8
Biface	1			1
Projectile points				
Ellis	1	1		2
Gary	1			1
Pedernales	1			1
Harrell	1			1
Scallorn		2		2
Fresno	1			1
GROUNDSTONE				
Pecked stone			2	2
Miscellaneous	—	—	1	1
TOTAL	244	142	82	468

loam in Unit 3, the upper loam in the entire site, and the lower loam in the entire site). In terms of the kinds of materials utilized, there were no significant differences. Two possible conclusions can be drawn from this examination. The first suggests that the artifact inventory is mixed. The mixture, however, is not only the same between Unit 3 and the remainder of the site, but within the various strata. This suggests, for instance, that chert artifacts or secondary flakes or any other of the attributes examined, have mixed in the same relative relationships in the upper matrices as in the lower ones.

The other explanation for the relationships is that this site is indeed stratified with two Neo-American components, with no technological change between the two. If the two components at the site can be isolated in the manner, the debris suggests that the two assemblages represent similar adaptations. This is not surprising given the location of the site in proximity to the resources associated with Isle du Bois Creek and the suggested limited functional nature of the encampments (Skinner et al. 1982).

The general artifact frequencies suggest that chert artifacts were selected about as frequently as quartzite and other materials combined. The greater incidence of quartzite cores may indicate that chert is not as readily available, but is the preferred knapping medium and was more carefully curated.

No ceramics or fire-cracked rock were recovered. Three shell fragments were recorded and probably relate to an infrequent exploitation of river mussels. In addition, nine probable pecked or ground stones were identified. They appear to be related to simple foraging activities. One piece of animal bone also was collected.

Summary

Based on the testing of 41DN99, a large portion of the site is shallow, less than 20 cm deep, with a deeper stratified deposit situated in the southern portion of the site. This area is from 55 to 60 cm deep and appears to consist of Early Neo-American deposits

41 DN 99 - Test Unit 6

West Profile

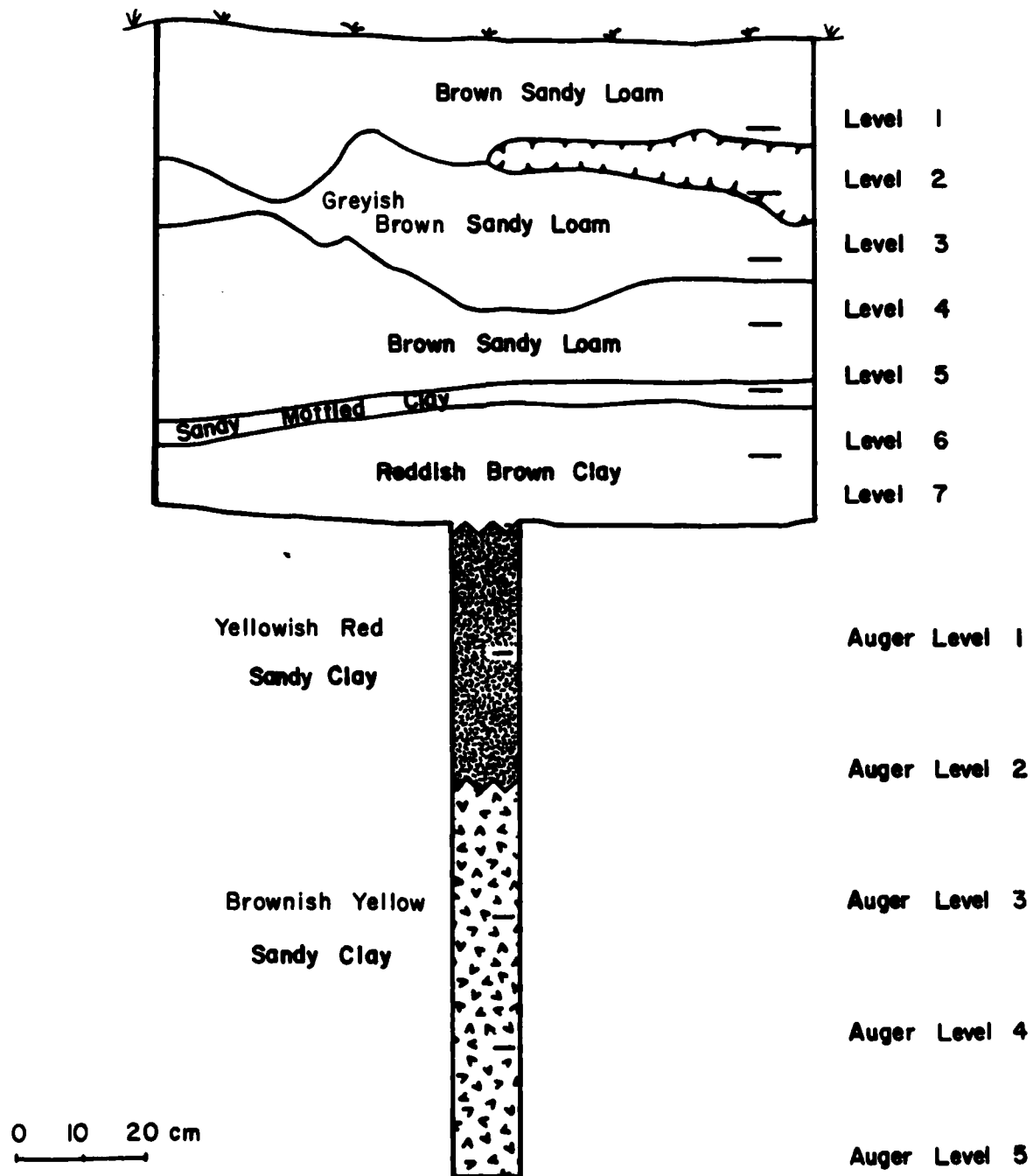


Figure 3-24. Western profile of Test Unit 6, 41DN99.



- Figure 3-25.** Lithic artifacts from 41DN99 (Scale 1:1).
- a. Fresno point from Test Unit 3.
 - b. Fragmentary point, possibly Harrell or Toyah, from Test Unit 3.
 - c. Point fragment, possibly Alba, from Test Unit 6.
 - d. Quartzite retouched flake, from Test Unit 3.
 - e. Chert retouched flake from Test Unit 3.
 - f. Ellis point from surface.
 - g. Scallorn point from Test Unit 3.
 - h. Chert biface from Test Unit 6.



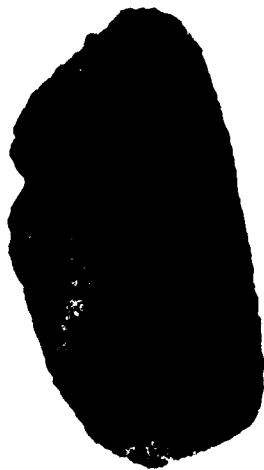
a



b



c



d



e



f



g



h



overlain by Late Neo-American, with no discernible change in technology, raw material utilization, or site function.

While some degree of terracing has taken place on the northern margin of the site, none of the test pits revealed any evidence of major disturbance or artifact mixture. This suggests that there is a high likelihood for the existence of preserved features. Most of the test units revealed a relatively high density of artifactual material, especially in the southern portion of the site.

The site was evaluated initially as a series of overlapping Neo-American microband seasonal campsites. As such, the site has a good potential for clarifying the nature of the Neo-American period in north-central Texas, especially the nature of the Early Neo-American period and its relation to the preceding Late Archaic. The existence of stratified Neo-American deposits at 41DN99 without apparent Archaic mixture make this site an excellent one with which to examine this problem. For these reasons, it is recommended that 41DN99 be nominated to the National Register of Historic Places.

41DN102

Site 41DN102 is an extensive prehistoric site on a low remnant of the first terrace of Isle du Bois Creek at about 175 m elevation. The site is situated approximately 50 m south of an intermittent slough which flows eastward into Isle du Bois Creek.

The site was exposed by a series of bulldozer cuts which destroyed part of the site (Figure 3-26). The purpose of these bulldozer cuts, (which run east-west) was to obtain gravel for commercial use. Consequently, much of the site appeared to have been destroyed when first found. Site 41DN102 was observed to consist of cultural debris eroding out of the sides of the bulldozer cuts, as well as a few artifacts which were scattered on the ground surface. Among the artifacts noted were flaked tools of quartzite and chert, groundstone, fire-cracked rock, mussel shell, mammal bone and some human skull fragments. The densest artifact concentration was noted at the center of the site where the bulldozer cut exposed cultural material in a dark sandy 20 cm thick lens. This lens could be seen extending to the east and west along the bulldozer cut, although it was not well defined away from the center (Figure 3-27). The soil associated with the cultural deposit is a brown, Bastrop fine sandy loam.

The survey crew collected four points from the surface of 41DN102. These are a Trinity point, two Edgewood points, and an Elam point. All of these were picked up in the center of the site. In addition, two more Trinity points were collected from the center of the site. In addition, the owner of the site had picked up a large number of points from 41DN102, and most of these appeared to be Late Archaic types. Based on this information, 41DN102 originally was dated to the Late Archaic phase, with possibly a Middle Archaic component, and a Late Neo-American component; and provisionally typed as a macroband seasonal base camp, based on site size and artifact assemblage (Skinner et al. 1982).

Testing Results

Testing began with the placement of 15 auger holes across the site. The results of this augering program are presented in Appendix 3. The auger holes defined the site as being slightly smaller than the scatter of surface artifacts, with an average depth of about 40 to 50 cm over most of the site. The densest part of the site seemed to be located on the terrace where the cultural deposits reached a maximum depth of 120 cm.

41 DN 102

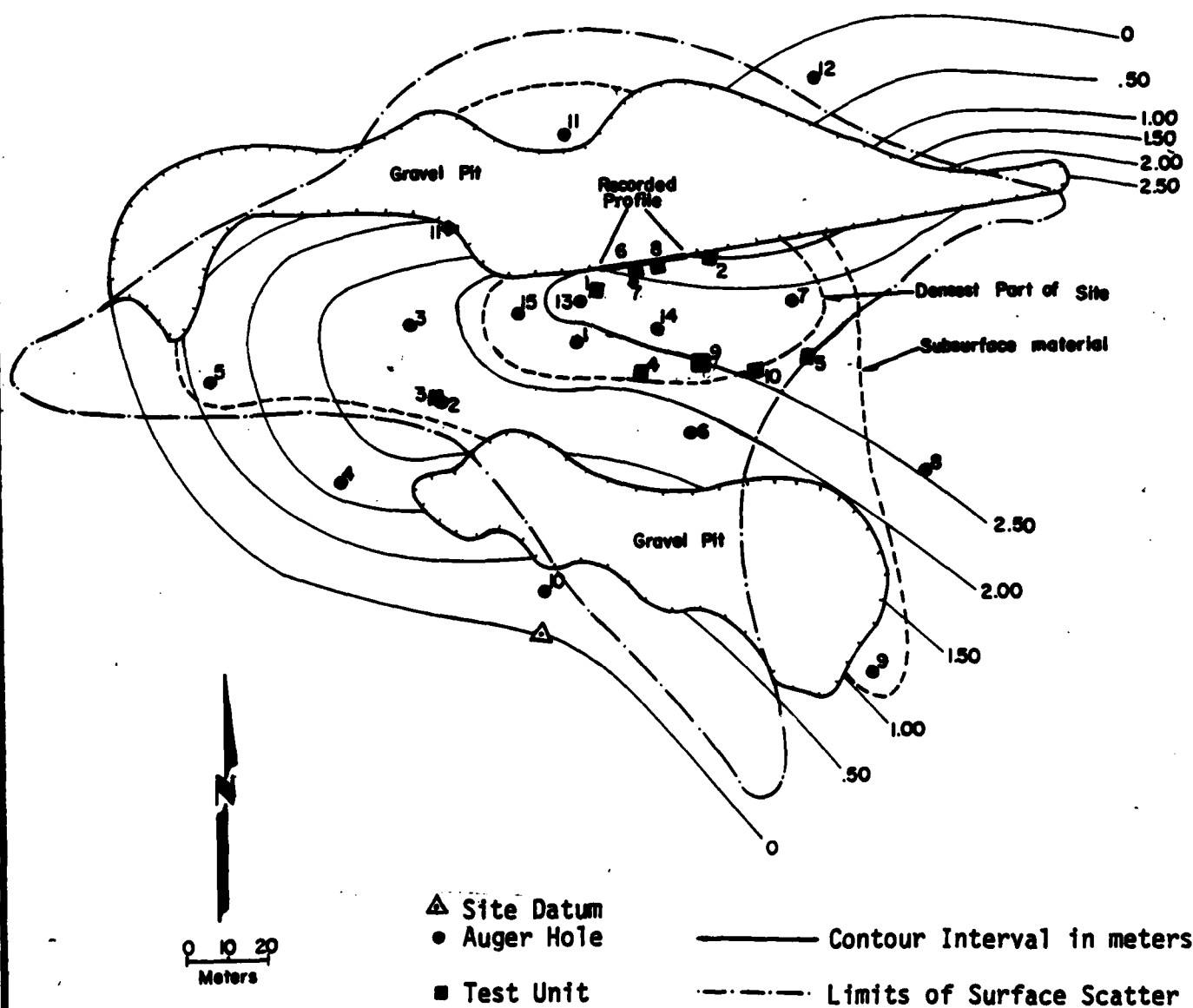


Figure 3-26. Contour map of prehistoric site 41DN102, showing locations of test units.



41 DN 102

Bulldozer Cut Profile

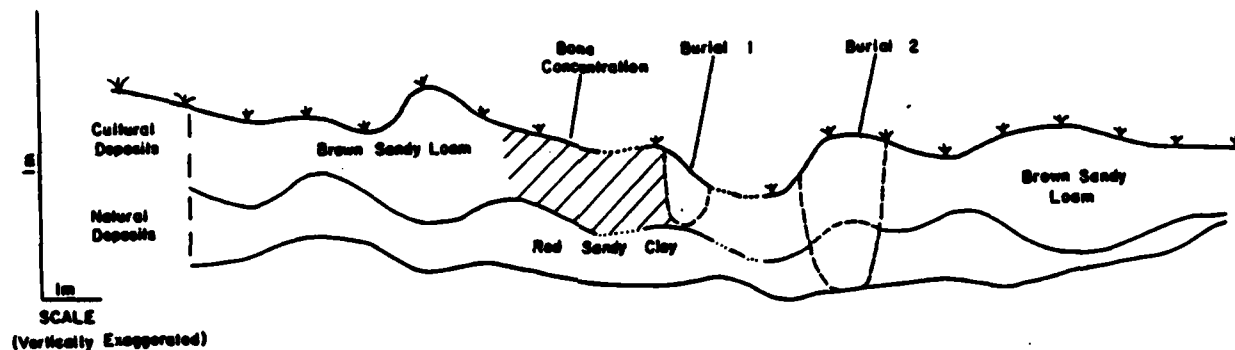


Figure 3-27. East-west profile of central area, 41DN102, showing cultural deposits overlying terrace material.

Following the auger program, ten 1 x 1 m test pits and one 1 x 0.5 m test pit extension and one 2 x 0.5 m test were excavated into the site. Eight of these units were located in the deep part of the site. The other four units were located southwest, southeast, and northwest of this central area.

Test Unit 1 was placed just south of the bulldozer cut and the gravel pit in what was believed to be the deepest part of the site. Unit 1 was hand-excavated to a depth of 70 cm, and was then augered an additional 1 m. The stratigraphy of Unit 1 is presented in Appendix 3.

A relatively large amount of material was recovered from this unit. The greatest quantity of material was in Levels 1, 2, and 3. Augering below the base of Unit 1 revealed no material. The cultural deposit in this area of the site is confined to the dark brown sandy loam overlying the reddish-yellow sandy loam. It is quite probable that this latter deposit is culturally sterile, and artifacts within it are the result of vertical migration.

Only a single identifiable projectile point was recovered from Level 3 of Unit 1, although two unidentifiable points were collected from Levels 4 and 5. The identifiable point seems to be a crude Yarbrough. In general size and workmanship, it seems to belong in the Late Archaic. Also of interest from this unit, is the proximal portion of a finely made biface, recovered from Level 1. The artifact is made of a fine, dark grey translucent chert, and is probably exotic.

Test Unit 2 was placed south of the gravel pit and northeast of Unit 1. Units 1 and 2 were at opposite ends of a cultural deposit that is about 30 cm in depth, and exposed in gravel pit wall. It was hoped that Units 1 and 2 would sample differing areas of the same cultural deposit. Unfortunately, after completion of Test Unit 2, it was found that every level had been disturbed by bulldozing. Appendix 3 presents the stratigraphy of Test Unit 2.

Unfortunately, Unit 2 was the only excavation unit to contain a diagnostic Middle Archaic projectile point. An extremely fine specimen of a Carrollton point was recovered from Level 1. The point is made of grey chert, almost certainly non-local, and is characterized by basal grinding on the stem. It should be noted that an unidentifiable point fragment was recovered from Level 4 as well.

Test Unit 3 was southeast of Units 1 and 2, on the southwest margin of the site. Auger Holes 2 and 3 had revealed the presence of bone and mussel shells, possibly indicating the existence of a midden. Test Unit 3 was excavated to a depth of 40 cm, and was then augered an additional 1 m. The stratigraphy of Unit 3 is presented in Appendix 3. The bulk of the cultural material was confined to the upper two levels, with a small amount of material in Level 3. This pattern makes it clear that the cultural materials in this unit are entirely confined to the dark brown sandy loam deposit.

Four points were recovered from Unit 3. Level 1 contained what is tentatively typed as a small Gary point with a broken tip. It appears to have been drastically resharpened, possibly into a drill, although the lack of a tip makes it impossible to be certain of this. Another possible Gary point fragment was uncovered in this level. Level 2 contained two diagnostic points, a Scallorn point, and a Perdiz point. This association of a Scallorn with a Perdiz point places the cultural deposits in Unit 3 within the Neo-American period.

Based on the results from Unit 1 and Unit 2, it was clear that 41DN102 contained both a Neo-American and an Archaic component. They were apparently in different parts of the site and not stratified. It seemed likely that any stratified deposits in the center of the site had been destroyed when the landowner removed 18 inches of topsoil. However, it was thought possible that stratified deposits might exist away from this disturbed area, on the margins of the site. Test Units 4 and 5 were attempts to locate such deposits.

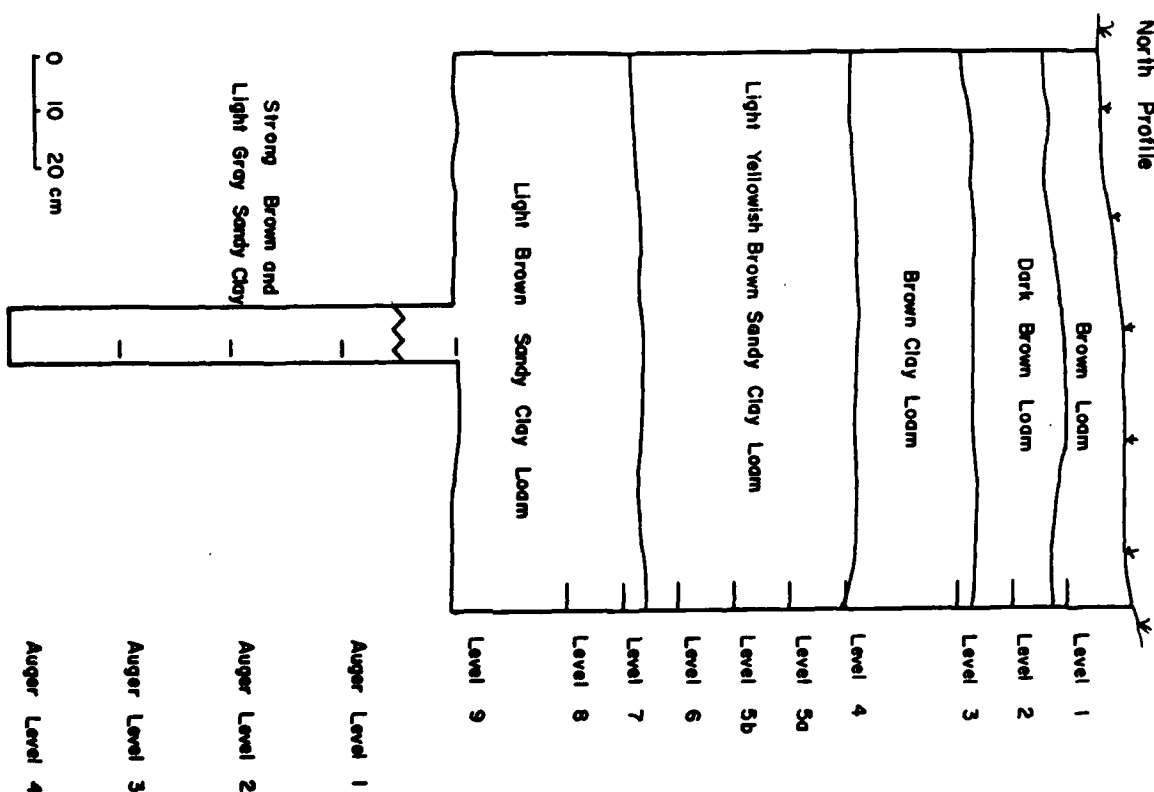
Test Unit 4 proved to have a deep deposit, and the unit was excavated to 120 cm, and then augered an additional 80 cm. A large amount of material was recovered from this unit and a relatively large number of stratigraphic levels were revealed. Appendix 3 presents the stratigraphy for Unit 4, while Figure 3-28 shows the northern profile of the unit.

The greatest amount of material was recovered from Level 1, in the brown loam deposit. Levels 2 and 3 were largely confined to the dark brown loam deposit, and contained a fair amount of material. The lower half of Level 3 was almost entirely sterile (only one flake was recovered from this half-level) and, as a result, Level 4 was removed as a 20 cm level. Because artifactual material continued to be found, the 10 cm levels were resumed and an additional 50 cm excavated. Because Level 8 contained only four flakes, Level 9 was a 20 cm level. This final level contained five flakes, but by now the unit was too deep for continued hand excavation and was augered.

Despite the stratified nature of this deposit, the lack of diagnostic material makes it uncertain exactly which cultural phases are present. One unidentifiable point fragment was recovered from Level 2, and a second almost complete projectile point was recovered from Level 5b. The second point is a Gary, several characteristics hint at its placement in the Late Archaic. It is a well made quartzite point with a nearly parallel-sided, rounded-base stem. In addition to this, the stem is alternately beveled on the right side, a trait said to be strongest in the Late Archaic. If Level 5b is indeed Late Archaic, the large depth of material above and below this level suggests that the

41 DN 102 - Test Unit 4

North Profile



41 DN 102 - Test Unit 5

East Profile

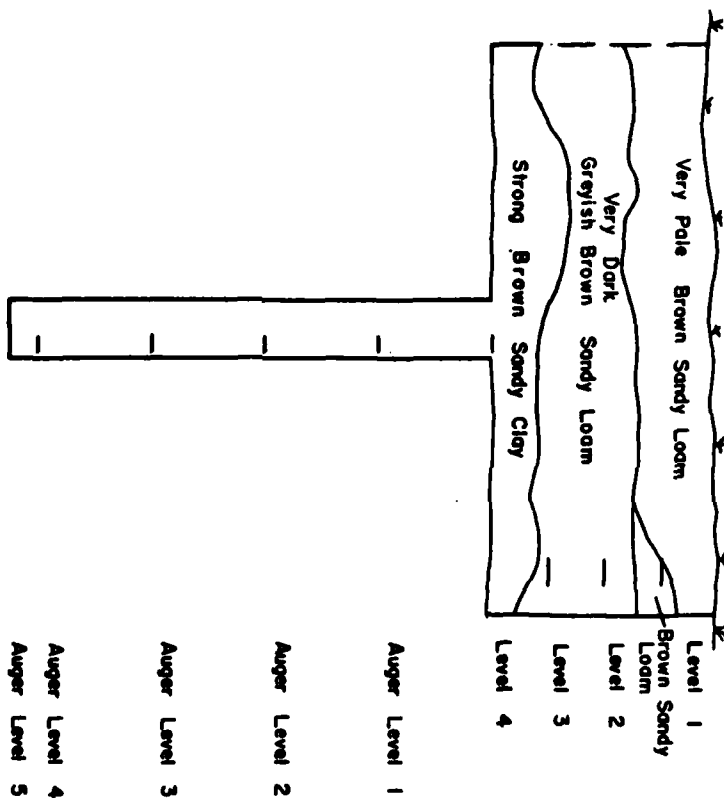


Figure 3-28. Northern profile of Test Unit 4, 41DN102.

Figure 3-29. Eastern profile of Test Unit 5, 41DN102.



n this portion of the site may span the period from the Middle Archaic to the possibly the Late Neo-American.

5 was placed on the southeast margin of the deep deposits in the center of the Unit 4, this unit was used to search for the presence of stratified material. s excavated to a depth of 40 cm and was then augered an additional 1 m. The hy of Test Unit 5 is presented in Appendix 3, and the eastern profile is shown 3-29.

al material was recovered from all four of the excavated levels. The data hat both the very pale brown sandy loam, and the very dark greyish brown n are cultural deposits. The only diagnostic materials recovered from Unit 5 aral sherds of what is typed as Nocona Plain. This identifies the very pale dy loam deposit as Late Neo-American in date.

6, 7, and 8 were initially begun as weekend rescue operations. These efforts apted by the observation of several burials eroding out of the bulldozer cut in ern wall of the large gravel pit. All three of these units were completed second phase of testing.

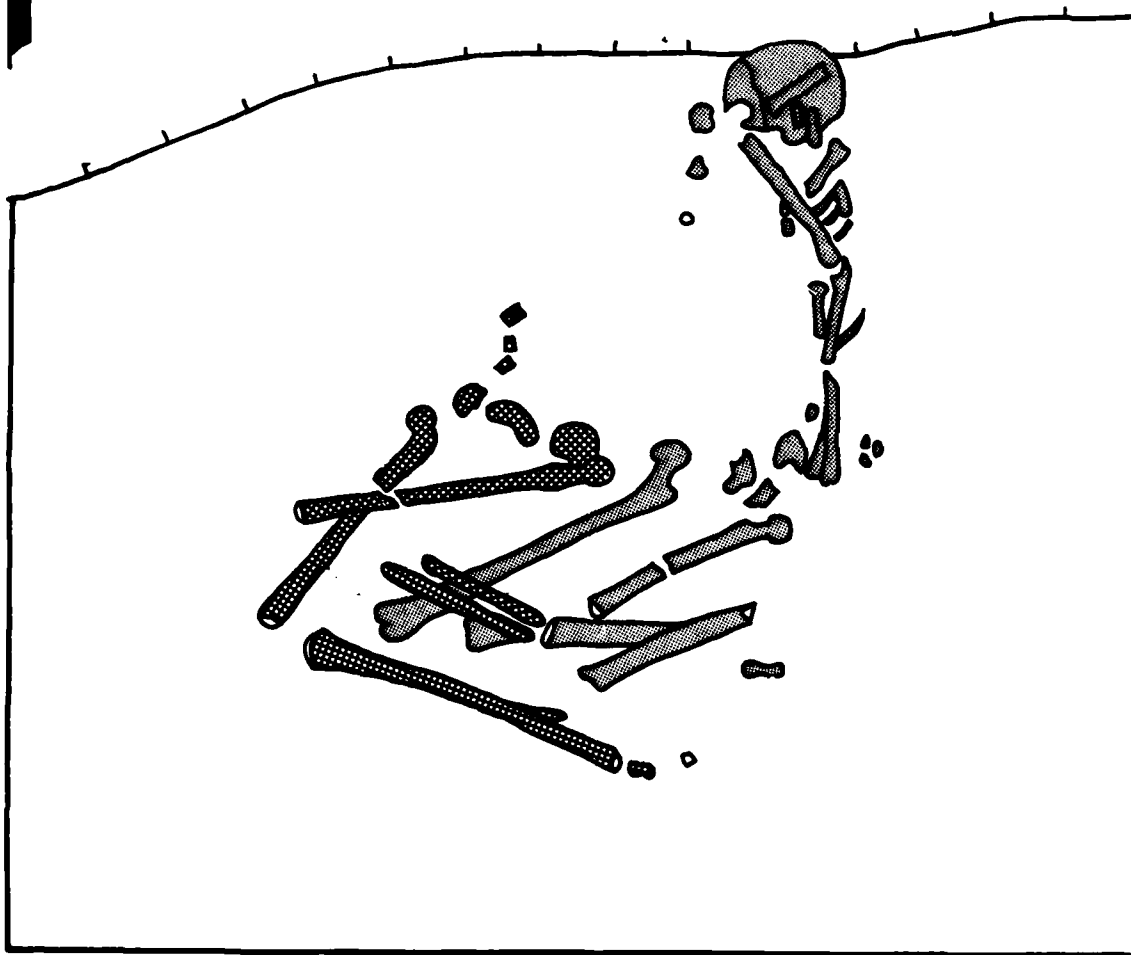
centrations of human bone had been noted along the bulldozer cut and ily labeled Burial 1 and Burial 2. Attempts had been made earlier to collect human bone along the cut, but this was the first effort to salvage any in situ Test Units 6 and 7 were placed over the area earlier termed Burial 2, while d later, 8b) was placed over Burial 1.

d 7 were separated by a 25 cm balk, with Unit 7 to the south. Both were 1 x and each was excavated to sterile terrace deposits. One Elam point (Figure s retrieved from Unit 7, Level 1. The stratigraphy for both Units 6 and 7 is in Appendix 3. Elam points are dated to the Late Archaic period.

8 was a 1 x 1 m pit located directly over Burial 1. It was excavated in 10 cm 30 cm. The stratigraphy associated with Unit 8 is presented in Appendix 3. At good portion of Burial 1 was exposed and it became evident that the unit be extended to the east. Unit 8b was begun as a 1 x 0.5 m unit just east of was excavated to a depth of 33 cm, where dense clay was encountered except thwest corner. This northwest corner contained black burial pit fill associated d 1. The stratigraphy associated with Unit 8b also is presented in Appendix 3. point, Units 8 and 8b were excavated as Burial 1.

as found to consist of the poor to moderately well preserved remains of two s, labeled 1a and 1b (Figure 3-30). Burial 1a consisted of the partial remains t male of indeterminate age, in a semi-flexed position, with his head generally o the north. Burial 1a had been interred on its back, with both legs drawn up on their right side. Unfortunately, almost nothing above the pelvis was in situ.

also consisted of an adult male. This individual was lying to the east of 1a, in e same position. The legs of Burial 1a, in fact, had been laid on top of those 1b, and the two were apparently part of the same interment. No mortuary was found associated with either Burial, but an Elam point was found in the ea of the right knee of Burial 1a.



0 10 20 30 cm

 Burial 1a
 Burial 1b

Figure 3-31. Artifacts from 41DN102 (Scale 1:1).

- a. Gary point from Test Unit 11.
- b. Wells point from Test Unit 11.
- c. Ellis point from Test Unit 11.
- d. Elam point from Test Unit 7.
- e. Unfinished point, possibly Elam, from surface.
- f. Transverse sidescraper from surface.
- g. Biface fragment from surface.
- h. Elongated mano from surface.



a



b



c



d



e



f



g



h



Test Units 9 and 10 were placed over magnetometer anomalies in the southeastern part of the site (Appendix 2). Both were 1 x 1 m units and excavated by hand to sterile terrace deposits. The stratigraphy of Units 9 and 10 is presented in Appendix 3. Both units contained flakes, but neither features nor a clear reason for the magnetometer anomalies was uncovered.

The final test in 41DN102, Test Unit 11, was placed along the edge of the bulldozed gravel pit northwest of the central part of the site (Figure 3-34). This unit was a 2 x 0.5 m rectangle which was placed over what appeared to be a shallow pit which was observed along the bulldozer cut. The cultural deposits in this area were observed to contain scattered bits of charcoal, and the goal of Unit 11 was to collect enough of this charcoal for one or more radiocarbon dates. Appendix 3 presents the excavation stratigraphy for Test Unit 11.

What was originally believed to be a pit in the center of Unit 11 may have been a depression which was allowed to collect trash. However, the unit did produce a number of diagnostic artifacts in stratigraphic context, as well as two charcoal samples large enough for dating. Among the artifacts recovered from Unit 11 were a Gary point and a Wells point from Level 3, a Perdiz point from Level 4, a small sherd from Level 5, and an Ellis point from Level 6. Assuming that vertical mixture has been minimal, this distribution suggests that Levels 2 through 5 are Late Neo-American in date (Level 1 consists of a totally disturbed layer of backfill from the gravel pit) while Levels 6, 7, and 8 are Late Archaic in date. Only Levels 7 and 8 yielded charcoal samples sufficiently large for dating. The combined samples from these two levels (UGa No. 4432) gave a date of 1980 ± 245 B.P. This is a Late Archaic date, and is consistent with expectations.

Artifacts

The majority of material was lithic debris. Almost all of the raw material was local or regional in origin. The fine cherts originated from small cobbles, some showing thermal alteration. The high ratio of primary and secondary decortification flakes to interior flakes may indicate the small size of the cobble cores utilized. The slight majority of chert artifacts in the assemblage may reflect a preference for this material as indicated at other large sites in the survey area. In general, bifacial cobble reduction seemed to be the most frequent technique, with a few hints of unidirectional core technique and bipolar technique.

Evidence for cooking and food-preparing activities included 50 fragments of fire-cracked rock, over 500 fragments of animal bone, 70 mussel shell fragments, burned clay and charcoal, and three grinding stones. A complete list of the artifacts recovered is included in Table 3-9.

In addition to the above artifacts, 19 points were collected from various contexts across the site (Figure 3-31). Six of these points were from the surface. The three Trinity points date from the Middle Archaic. The two Edgewood points apparently span the same Middle to Late Archaic period, and an Elam point dates to the Late Archaic period. The surface indicators suggest a Middle to Late Archaic date for the site.

Excavation produced the remainder of the points. Six unidentifiable point types were recovered from various contexts. One Yarbrough point, dating to the Late Archaic, was taken from Unit 1, Level 3. A Carrollton point was collected from the disturbed Level 1 in Unit 2. It dates to the Middle Archaic and appears to be made from a non-local chert source. Four identifiable points were collected from Unit 3, including two Gary

Table 3-9.
Prehistoric artifacts recovered: 41DN102

Type	Chert	Quartzite	Other	Total
FLAKES				
Primary	28	26	29	83
Secondary	227	224	44	495
Interior	323	202	59	584
Bifacial thinning	36	7	3	46
DEBRIS	1			1
CORES	6	11	1	18
TOOLS				
Bifaces	13	12		25
Retouched pieces	19	4		23
Scrapers	2			2
Drill		1		1
Hammerstone		2		2
Bifacial blade	1			1
Projectile points				
Carrollton	1			1
Trinity	3			3
Edgewood	2			2
Elam	1	1		2
Ellis	1	1		2
Yarbrough		1		1
Gary (Kent?)		1		1
Gary	1	1		2
Wells	1			1
Perdiz	1	1		2
Scallorn	1			1
Unidentified	1			1
GROUNDSTONE				
Pecked stone			1	1
Mano			1	1
Miscellaneous			3	3
CERAMICS			5	5
TOTAL	669	495	146	1310

point fragments from Level 1 which may be associated with the Early Neo-American. One Scallorn point dating to the Early Neo-American and one Perdiz point associated with the Late Neo-American period were recovered from Level 2, indicating a Neo-American date for this portion of the site. Another Gary point was recovered from Unit 4, Level 5b, and shows characteristics associated with the Late Archaic period. One Elam point, dating to the Late Archaic period, was found in Unit 7, Level 1. An Elam point dating to the Late Archaic was collected in Level 3 of Unit 8, apparently associated with Burial 1a. Finally, four points were recovered from Unit 11: a Gary, Wells, Perdiz, and an Ellis. In addition to the dated points, a few sherds were collected from the upper levels of Unit 5 and from Unit 11. They have been assigned a Late Neo-American date and typed as Nocona Plain.

Human Remains

The remains from a minimum of five individuals were recovered from 41DN102. Two adult males were interred together and excavated from Unit 8. Individual 1a from this unit consists of the lower appendicular skeleton. Most elements of the entire skeleton of individual 1b are present. Both individuals appear to have been buried semi-flexed, with individual 1a superimposed and slightly forward of individual 1b. Both individuals were buried upon their backs with legs flexed to the right side. Portions of another individual, an adult female, was excavated from Unit 6. The remains of at least two additional individuals were recovered from the surface. One of these is an adult, possibly a male, and is represented by a right femur. Another individual is known by a

few cranial fragments. These fragments are burned, and range in color from calcine (chalk white) to dark black. The thickness of one cranial fragment from this individual suggests an adult age at death.

The condition of the bone is generally good, but a large portion of the recovered remains exhibit extensive rodent gnawing. In some instances, this gnawing has penetrated the medullary canal. The outer cortical bone has suffered from extensive ground erosion, with the net result of considerable loss of this surface. Where this surface has been preserved, no signs of pathology, such as periostitis, is evident.

Dental pathology is limited to alveolar resorption, attrition, and pre-mortem dental evulsion. Enamel hypoplasia is present, but only to a slight degree.

Post-cranial pathology is limited to arthritic changes in individual 1b. This change is manifested within the thoracic vertebral elements by moderate lipping. A lower vertebral centrum (lumbar or sacral) exhibits extensive osteophytic activity.

Stature was estimated from fragmentary long bones using McKern and Steele's (1969) method. Individual 1a has been estimated to have stood 172 cm, individual 1b 167.5 cm, and individual 2, 160.8 cm.

Summary

Based on the subsurface testing of 41DN102, the site seems to span the time period from the Middle Archaic to the Late Neo-American period, with stratified deposits present in the south central portion of the site. While no in situ Middle Archaic levels could be positively identified by the testing, the diagnostic Middle Archaic material in disturbed context and on the surface makes its presence a certainty. In light of the location of the Middle Archaic surface finds, the area which is most likely to contain these early deposits is in the central portion of the site. Quite a bit of topsoil was removed by the landowner in this area, which probably contained the later material. In addition to this, much of the deposit has been removed by gravelling operations. Nevertheless, a great deal of material is left and is clearly revealed in profile by the gravel pit.

Evidence indicates a strong Late Archaic occupation in this area of the site, and it is to this period that the human remains recovered from the surface and from Unit 6 and Unit 8 are believed to date. A Neo-American occupation also is present on the site, apparently spanning both the Early and Late periods, although the intensity of this occupation is unclear because of the destruction of these levels in the central part of the site.

Based on the results of the testing, it is recommended that the site be nominated to the National Register of Historic Places, and steps be taken to mitigate its loss.

41DN103

Site 41DN103 was located in a plowed field in the Elm Fork floodplain at about the 177 m contour. The site is located about 0.05 km south of Pond Creek, and 0.55 km west-southwest of the confluence of the Elm Fork of the Trinity and Pond Creek.

The site was observed to consist of a sparse surface scatter of quartzite lithic debris in the form of flakes. One hammerstone was noted, as well as some mussel shell and a

concentration of fire-cracked rock (see Figure 3-32). A quartzite projectile point also was collected. This point has been typed as an Elam point.

The lithic scatter covered an area of about 0.49 ha, extending 62 m north-to-south by 90 m east-to-west, and the soil consisted of a dark grey to black Frio silty clay. The site had been moderately disturbed by plowing, and the initial impression was that the artifacts may have been moved from their original context.

Testing Results

Initial augering of 41DN103 involved 10 auger holes positioned systematically across the site. Only 3 of the 10 auger tests revealed any subsurface material. These were Auger Holes 4, 5, and 8, which showed cultural material from 20 to 40 cm below ground surface in the southwestern portion of the site.

Following augering, three 1 x 1 m test units were excavated into the site to gain more data on the subsurface stratigraphy and increase the artifact sample. The first pit, Test Unit 1, was dug during the initial testing phase, while the other two were excavated during the second testing phase. Unfortunately, during the initial phase, the plowed field in which most of the site was located was planted in winter wheat, and the landowner requested that it not be disturbed. During the second phase, although the field was empty, the landowner continued his request that the field not be dug up. As a result, the test units could not be placed in the area where the initial augering had indicated some depth to the site and the highest artifact density. The results of the augering and test pitting are presented in Appendix 3.

Instead, the excavation units were placed north of the field, close to the area where the survey crew had noted a concentration of fire-cracked rock. Test Unit 1 was excavated to a depth of 30 cm without finding any artifactual material. At this point, Test Unit 1 was terminated, and an auger hole was drilled to a depth of 1 m below the base of the unit. The stratigraphy for Test Unit 1 is presented in Appendix 3, and Figure 3-33 shows the northern profile of the unit.

No artifacts were found in Levels 1 and 2 of Test Unit 1. However, snail shells occurred throughout both levels, and numerous (10) small bits of bone were found scattered in Level 2. One artifact was revealed by the augering: a large quartzite core at 50 to 70 cm below ground level. In consideration of the unfavorable location for Test Unit 1, it was felt that 41DN103 warranted further testing before an adequate evaluation could be made. For this reason, the two additional test pits were excavated.

Test Unit 2 was excavated to a depth of 70 cm below ground surface in five levels. The only artifact recovered from Test Unit 2 was an animal tooth found in Level 4. Test Unit 3 was excavated to a depth of 90 cm. A relatively large amount of archaeological material was found in every level. A concentration of small sandstone rocks (labeled Feature 1), was recorded in Level 5 (Figure 3-34). Feature 1 was a somewhat circular concentration of small sandstone fragments that went into the west wall at approximately 64 cm below the surface. Chert flakes, mussel shell, and bone were noted in among these stones along with a small amount of charcoal. In addition, one quartzite Elam point was recovered from this context and may date the deposit to the Late Archaic period. Test Unit 3 was terminated after encountering a dense layer of sterile, dark, tan-to-brown clay at 85 cm. Figure 3-35 shows the western profile of Test Unit 3, with Feature 1 in section.

41 DN 103

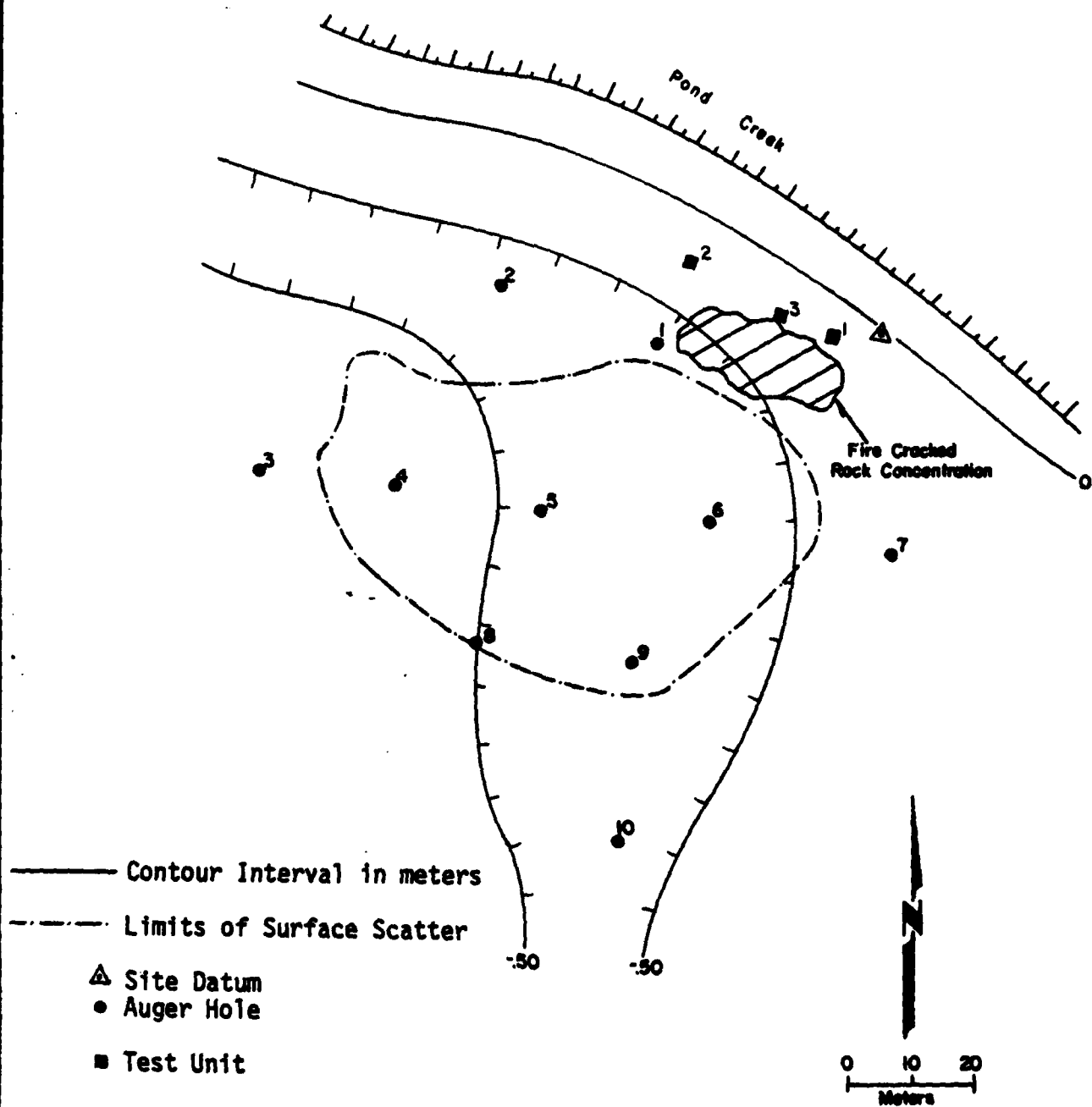
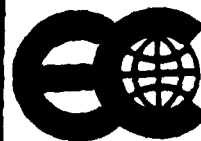


Figure 3-32. Contour map of prehistoric site 41DN102, showing locations of test units.



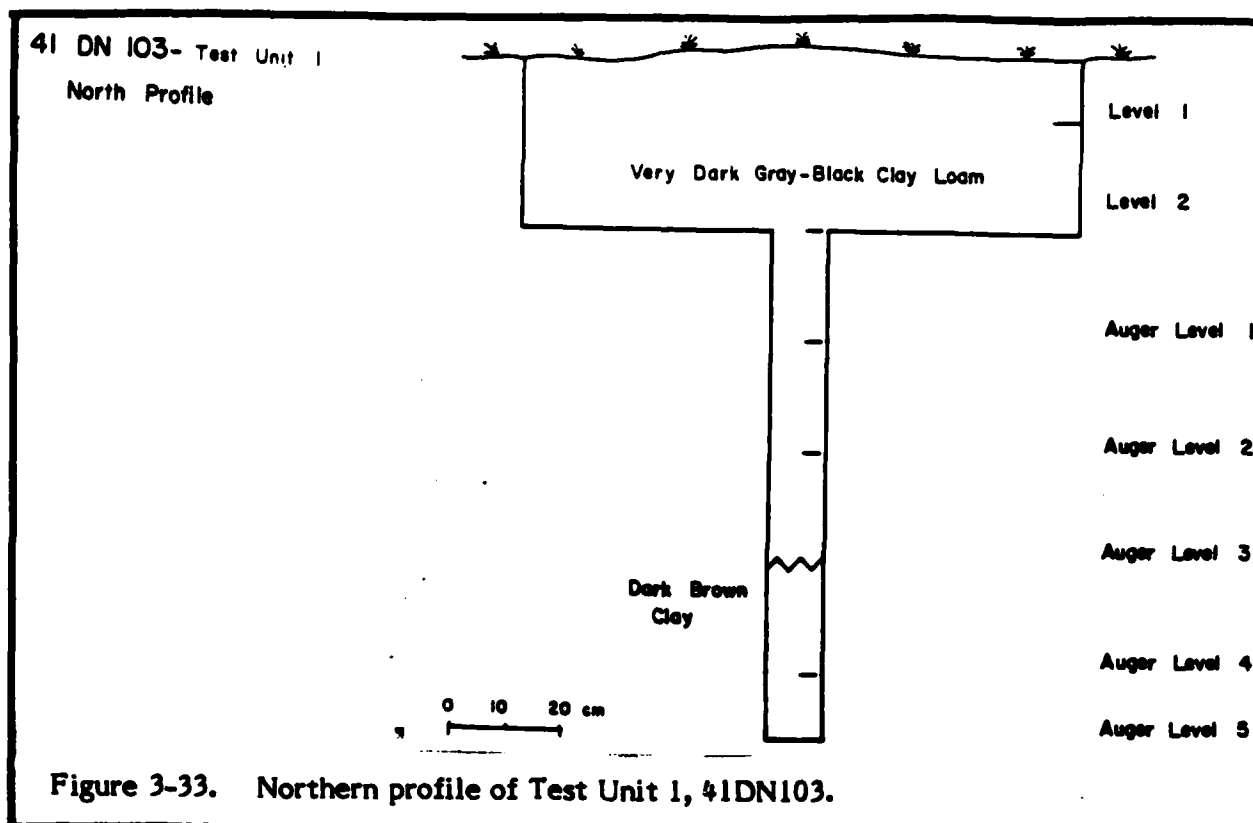


Figure 3-33. Northern profile of Test Unit 1, 41DN103.

Artifacts

The artifacts from 41DN103 consist mainly of lithic debris (Table 3-10). The quantity of quartzite and chert recovered is about equal and the ratio of quartzite to chert of about 1.09 to 1. The majority of the flakes resulted from bifacial cobble reduction. Over 130 pieces of fire-cracked rock were recovered, most of it associated with Feature 1. A few pieces of fired clay and charcoal also were found in Feature 1.

A considerable amount of shell was collected (about 50 fragments) as well as bone (26 pieces). Much of this was removed from Test Unit 3. The only temporal diagnostic item recovered from the excavations was the Elam point from Feature 1.

Site 41DN103 is thought to be a single component occupation. Feature 1 may be a hearth; the associated shell may indicate the food eaten. Given the site location in the floodplain, this hypothesis seems appropriate.

Summary

41DN103 was typed originally by the survey as a Late Archaic musselling base camp, based on site size and surface artifacts (Skinner et al. 1982). The testing conducted at this site has failed to refute this model, but has revealed a buried occupation horizon with scattered artifacts and in situ features varying from 60 to 65 cm below surface in the northern portion of the site. Based on the existence of in situ features at 41DN103, it is recommended that the site be nominated to the National Register of Historic Places, and its loss be mitigated.

41 DN 103 - Test Unit 3

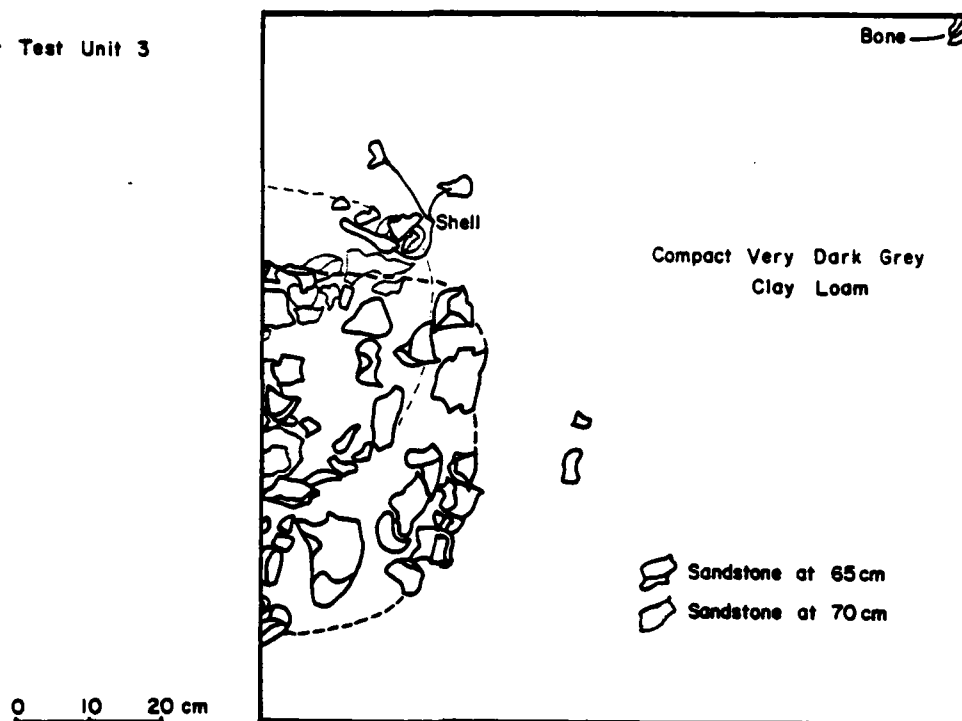


Figure 3-34. Sandstone concentration, Feature 1 in Test Unit 3, 41DN103.

41 DN 103-
WEST WALL

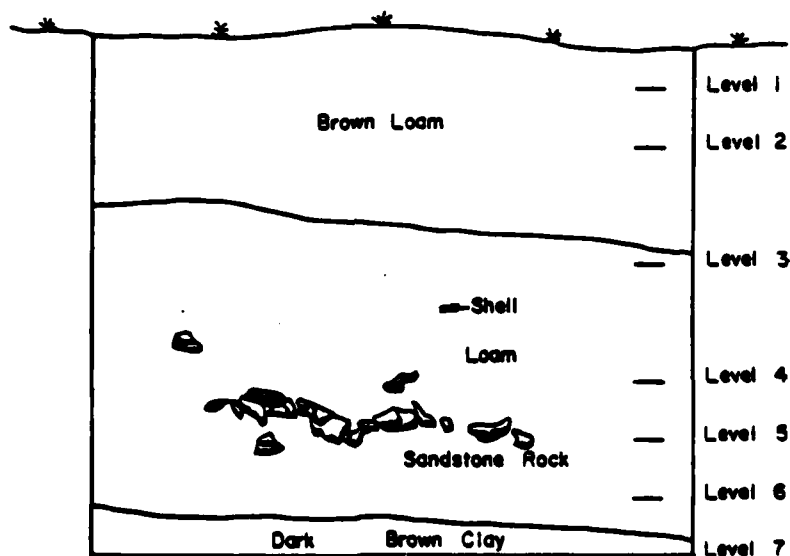


Figure 3-35. Western profile of Test Unit 3, showing Feature 1 in section, 41DN103.



41 DN 112

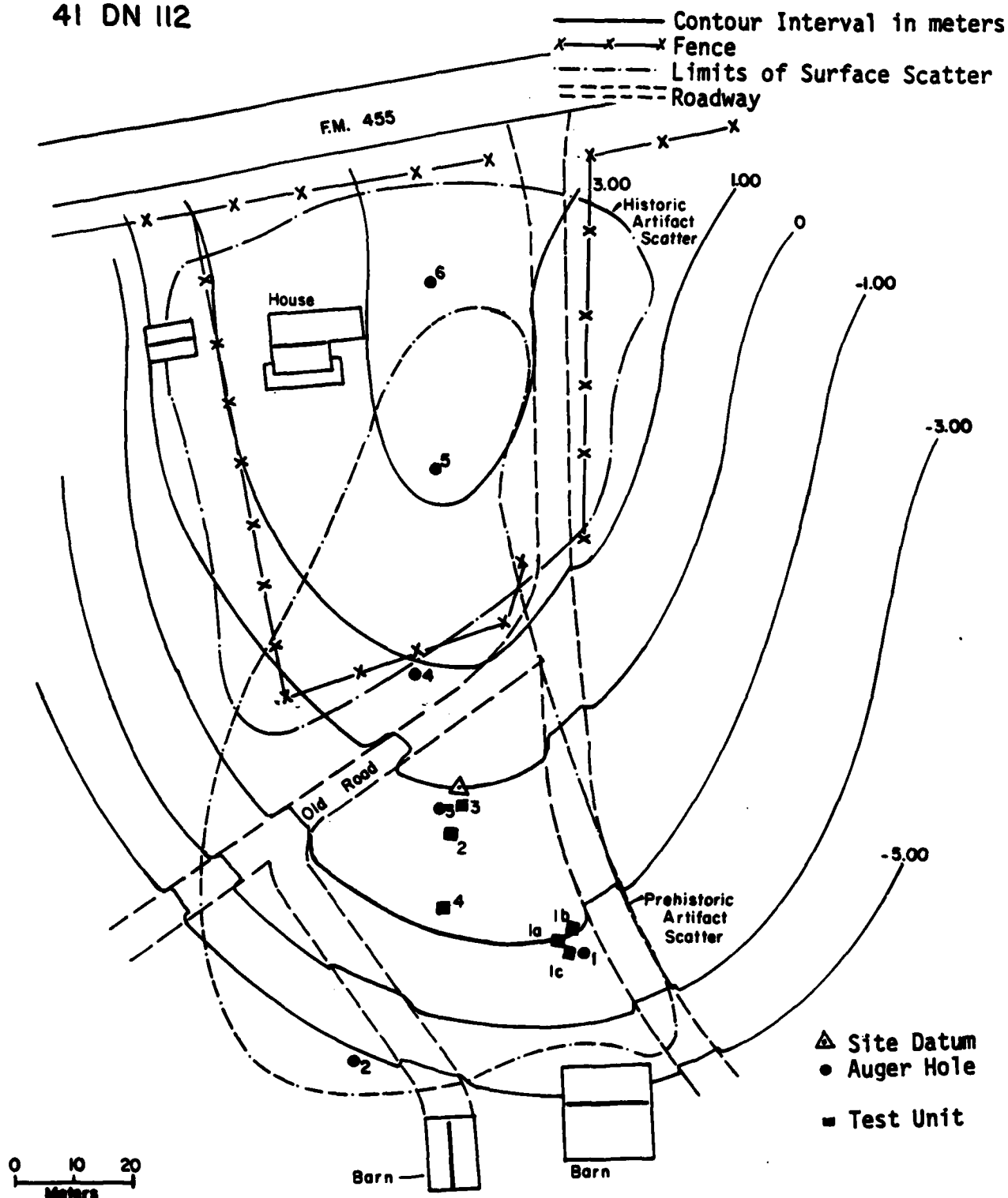


Figure 3-36. Contour map of prehistoric site 41DN112, showing locations of test units.

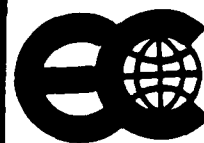


Table 3-10.
Prehistoric artifacts recovered: 41DN103

Type	Chert	Quartzite	Other	Total
FLAKES				
Primary		2	2	4
Secondary	17	28	1	46
Interior	24	13		37
Bifacial thinning	2			2
CORES	1	4		5
TOOLS				
Projectile points				
Elam	—	1	—	1
TOTAL	44	48	3	95

41DN112

41DN112 is a multi-component site, consisting of both a prehistoric lithic scatter and an historic occupation. The site is situated on the edge of the first terrace above the Elm Fork at an elevation of about 183 m. The site is located about 0.35 km east of the Elm Fork of the Trinity River, and 0.25 km west of a small intermittent drainage which flows southward into the Elm Fork.

The prehistoric component of 41DN112 was recorded as a surface scatter of lithic material including both quartzite and chert flakes, at least one projectile point base, several core fragments, a drill, a hammerstone, and non-diagnostic lithic shatter of both chert and quartzite. The scatter of artifacts was noted primarily on the sides of the hilltop, while a modern house rests directly atop the hill (Figure 3-36). The prehistoric artifacts generally are not concentrated except for an area in the southeast section of the site where some flakes and tools were noted as a small concentration on a road.

The historic component at 41DN112 consisted of a surface scatter of artifacts which partially overlapped the prehistoric scatter. The observed artifacts included broken bottle glass (white, clear, and purple), crockery, and earthenware (some of which was decorated). The artifacts appeared to be evenly scattered, with no apparent concentrations. The historic artifact scatter was not quite as extensive as the prehistoric scatter, and the prehistoric lithic material extended farther south and downslope.

Site 41DN112 also contained one standing structure of some interest. The long low profile of this structure suggests it may be a sheep shed or possibly a cattle-feeding or farrowing shed. This agricultural structure is of unusual size and shape for this area, and therefore warranted further investigation to determine its original use and possible significance as a survival of distinctive agricultural material culture.

The prehistoric and historic material was scattered over an area of about 1.10 ha, and stretched about 160 m north-to-south and about 80 m east-to-west. The site is located on a brown, Altoga silty clay.

Historic Background

The first mention in the Denton County deed records of site 41DN112 dates back to 1878, when Daniel Strickland deeded the eastern third (200 ac) of one of the choicest original survey tracts in northern Denton County to his sons John and Stonewall Jackson Strickland (W.D., K:59). John T. sold his interest in the property to D. L. Strickland in 1894 (W.D., 54:49), who then sold it to Herbert E. Lobdell (W.D., 54:267), but the transactions were later declared invalid because John was under age when he made the sale. In 1898, the two brothers took an argument to court, apparently unable to effect a division of their joint land holdings peaceably. The presiding judge divided the 200-ac parcel into two tracts of 85 and 115+ ac, awarding the 115+-ac tract (including site 41DN112) to John T. Strickland. In 1898, J. T. Strickland sold his 115 ac for \$1150 to J. R. Sullivan (W.D., 68:422).

Sometime prior to 1903, J. H. Hughes, a local land speculator, acquired this property. In that year, he sold it to W. E. Partlow for \$1675 (W.D., 91:86). It is probable that Hughes retained a mortgage on the land, for 114+ ac of the tract were sold by him to W. O. Cadell in 1904 (W.D., 163:488). In 1907, Cadell sold it back to Hughes for \$3488.55 and cancellation of "vendor's liens" (W.D., 163:488). J. H. and Alpha Hughes retained ownership of the land until 1931, when they sold the 114+ ac to C. W. Morrow for \$5,500 (W.D., 234:174). According to Edward and Elsie Morrow (interviews, 1-18-81 and 1-10-81), C. W. Morrow bought this parcel of land in 1928 or 1929. Therefore, it is probable that the title was not transferred until all payments were completed. C. W. Morrow deeded the land, along with other property, to his daughter Odessa Morrow Isbell and son-in-law John W. Isbell in 1972 (W.D., 662:74), and it remained in the family until 1979, when it was sold to Dan R. McKinney (W.D., 966:127), the present owner.

Wesley Morrow and his family moved from Canada to Cooke County, Texas, when C. Wesley Morrow and his brother were small boys. C. W. Morrow married Martha Vaughn, a local girl who was raised in the "Denton area," and they purchased a farm near the county line in central Denton County. C.W. was a local schoolteacher and farmer, who taught history for many years. Acquisition of the tract which contains site 41DN112 was part of his continuing effort to expand his landholdings in the neighborhood in the first half of the twentieth century.

Edward Morrow was one of seven children born to C. Wesley Morrow. Edward A. and Elsie Morrow were married in 1926. The young couple rented the 114+ ac from his father in 1928, and they lived on site 41DN112 between 1928 and 1931. After renting land on another farm between 1931 and 1944 (identified as 41DN144, see Skinner et al. 1982) they purchased their own farm in 1944. They have lived at that location ever since.

While farming on site 41DN112, Morrow cultivated 50 ac with mules and a walking plow, working 7 to 10 ac a day. He grew wheat, corn, and cotton, and cultivated Johnson grass for hay to feed the stock. Livestock on the farm at that time included three or four cows, four horses, and chickens. In 1928-1929 the price of cotton had slipped to 4½¢ a pound; they marketed the crop at the gins in Sanger or Pilot Point. Because corn and grain were planted in the fertile bottomlands, they frequently lost these crops due to flooding, one year having to replant four times to get a crop.

In 1929, there were four buildings on the site: house, barn, outhouse, and chicken shed. The house was located approximately where a modern house is now standing.

ric residence has been described as a "box house." From informants' ns, it was probably a typical tenant house for the area, a board-and-batten placed on piers. The house contained three rooms that served as ning room, bedroom, and living room/bedroom. The well was located 200 n the house; a pipe tapped an underground spring for drinking water. The was located "down the hill" from the residence.

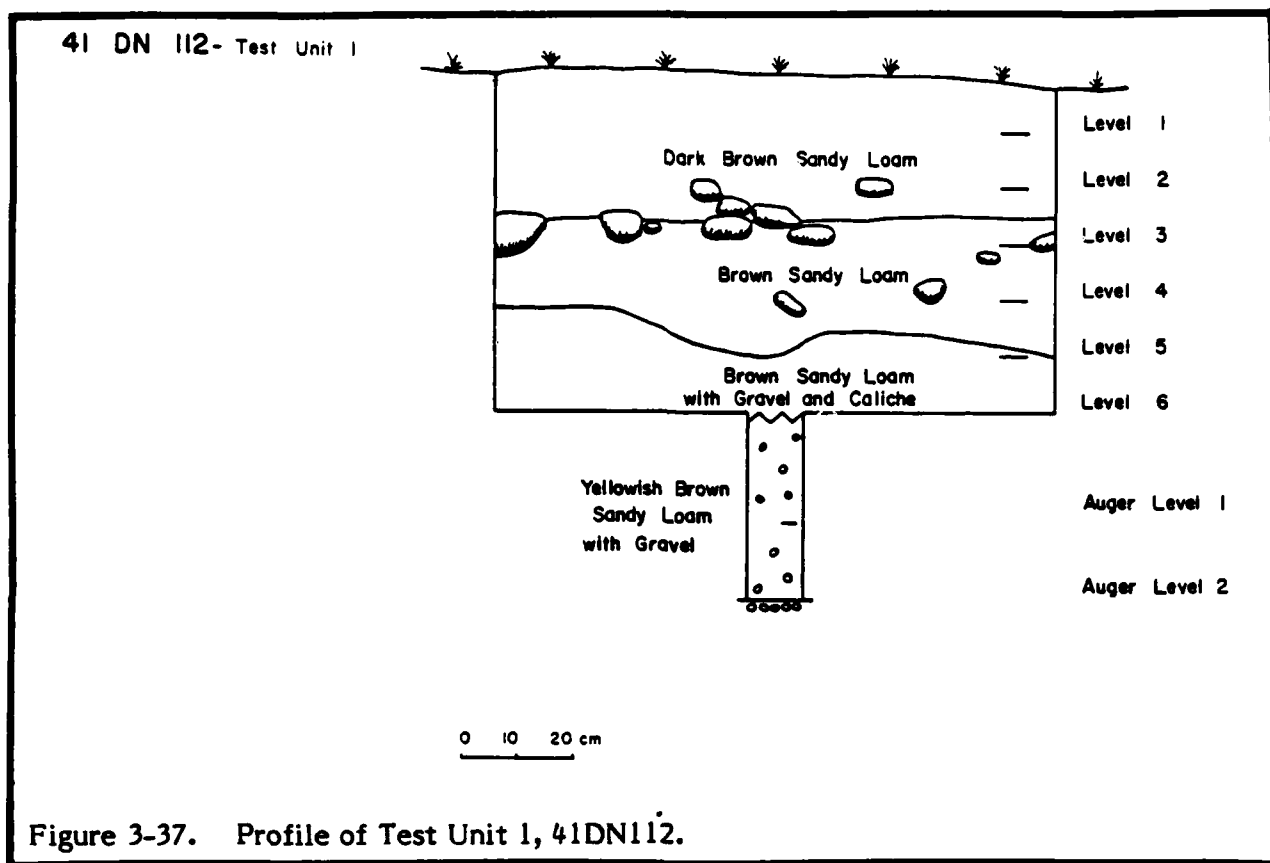
described as a "piece of a shed," is the only historic structure extant on the as used to store feed and provide shelter for the mules. The chicken coop was Morrow during his residence on the site. The farmstead arrangement was the construction of FM 455. The old road ran between the house and the hat the house was on the north side of the road and the barn on the south. In o the house, outbuildings and a garden, a peach orchard and pecan trees were n the site when the Morrows lived there. The house had been there "a good ore the Morrows moved in, and the barn was built about the same time as the

Results

e testing of 41DN112 consisted of an initial series of six auger holes drilled site to evaluate its size and depth. Only Auger Holes 2 and 6 contained no l material. Based on the augering, the surface scatter is a reasonable of the size of the prehistoric site, except for a small amount of eroded it the base of the southwestern slope. The greatest depth for the prehistoric was in approximately the center of the prehistoric scatter, reaching a depth of . Six test pits were excavated at this site. The results of subsurface testing ted in Appendix 3.

l was placed in the southeastern portion of the site, where Auger Hole 1 had prehistoric material to a depth of about 60 cm. Test Unit 1 subsequently was to a depth of 60 cm, and augered an additional 34 cm, at which point the posits became impenetrable. Figure 3-37 shows the test pit profile and the i levels. The greatest amount of cultural material was recovered from Levels ithin the layer of dark brown sandy loam shown in Figure 3-37. Levels 3 and 4 less material while Levels 5 and 6 lacked artifactual material altogether. owever, did contain nine fragments of mussel shell. A scattering of fire-ock was observed in Level 3 (corresponding to the base of the dark brown) and is shown in Figure 3-38. No trace of a hearth or in situ firing could be this material may represent a light midden scatter away from the main area.

: material from Test Unit 1 included one fragmentary arrow point in Level 1 rds scattered in Levels 1, 2, and 3. The arrow point is a proximal fragment t be typed. The blade edges are serrated and the material is a fine t grey chert, although it does show evidence of heavy thermal alteration. s are shell-tempered and have been typed as Nocona Plain. All of this oints to a Late Neo-American date for the dark brown sandy loam in this ortunately, there is no good evidence for the date of the light brown sandy w it. Level 3 contained two sherds: one shell tempered and one grit It is possible that one or both of these originated from the dark brown sandy his were the case, then the lower deposit could be Early Neo-American in



Test Unit 1b was located and extended from the northeast corner of Test Unit 1. This unit was taken down to a depth of 50 cm in 10 cm levels. All of the levels produced cultural material. The first 5 cm of Level 1 were sterile, but the remainder yielded numerous artifacts. Recovered material included mussel shell, quartzite and chert flakes, burned bone, pottery and a chert point tip. This cultural material was prevalent throughout the five levels. Two projectile points were found in Test Unit 1b, one in Level 2 and another unidentified point in Level 4. The one from Level 2 is an Alba point indicating an Early Neo-American date. At the base of Level 3, a large number of rocks, some of which were burned, was exposed. No pattern was noted, although this same rock pattern was noted in Test Unit 1. Toward the bottom of Level 5 the artifact density dropped significantly. The matrix also had changed from a dark brown sandy loam to a light brown compact loam mottled with caliche and gravel. The floor of the unit was augered to a depth of 49 cm below the unit floor.

Excavation Unit 1c was extended from the southeast corner of Test Unit 1. This unit was excavated to a depth of 50 cm. Cultural material was recovered from all of the levels. A Bonham point was recovered from Level 2 suggesting an Early Neo-American date. The artifact density drops off considerably in Level 3. As in Test Units 1 and 1b, numerous rocks were observed at the base of this level and in Level 4. Some appeared to be fire-cracked. Very few artifacts were recovered from Levels 3, 4, or 5.

Excavation Unit 2 was placed northwest of Test Unit 1, closer to the top of the terrace, and in the apparent center of the prehistoric site. Auger Hole 3 had contained artifactual material to a depth of 100 cm, and it was hoped that the cultural deposits in this area of the site would reveal greater depth and an earlier component. Test Unit 2 was excavated to a depth of 80 cm, and was then augered an additional meter.

41DN112

Test Area 1

Plan View

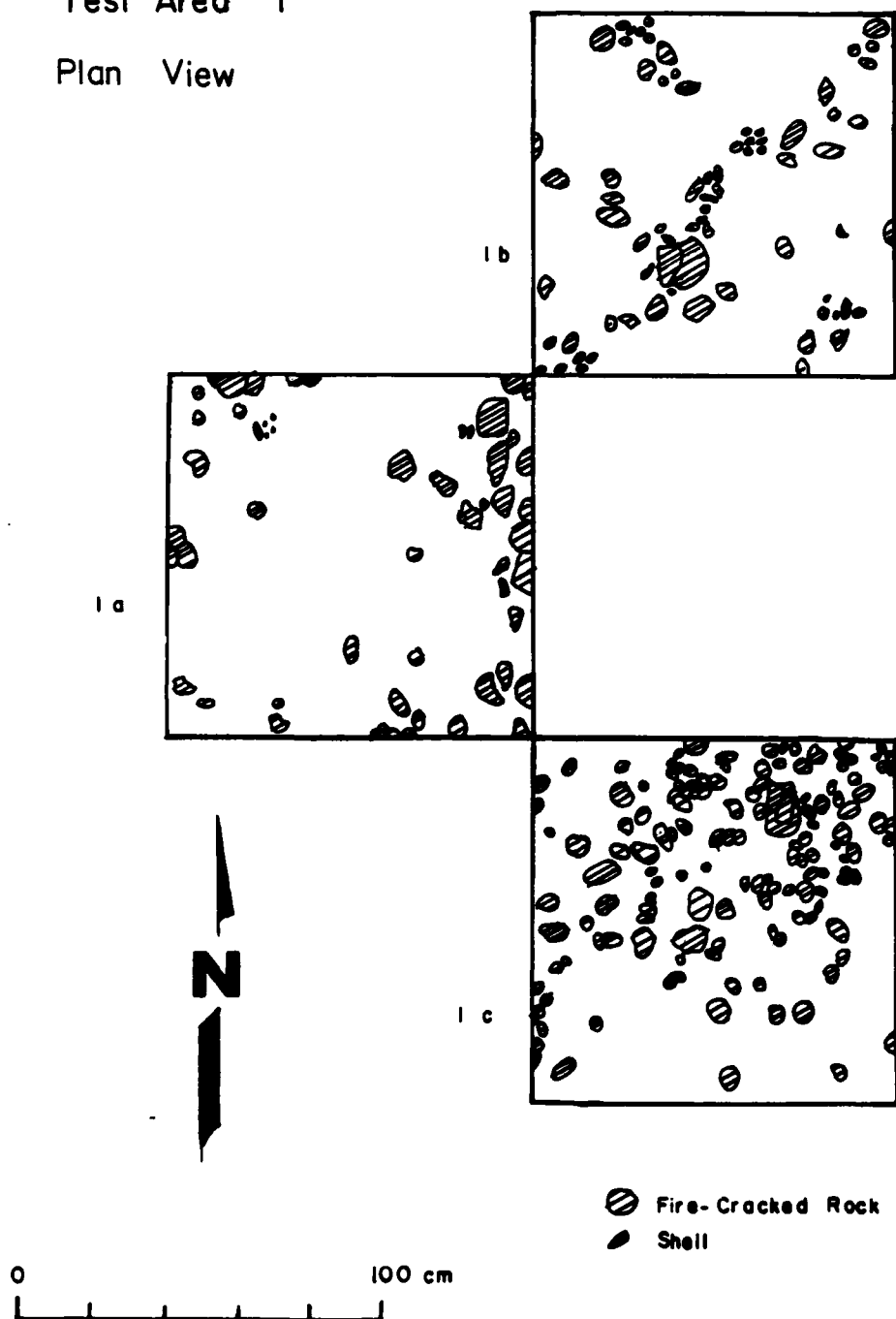


Figure 3-38. Fire-cracked rock scatter exposed in Test Area 2, 41DN112.



As was the case with Test Unit 1, the excavation in Test Unit 2 revealed essentially two culture-bearing layers overlying what are apparently sterile terrace deposits. The upper cultural deposit, a dark grey sandy clay (comprising Levels 1 through 4, in general), contained a relatively large amount of cultural material, plus one almost complete projectile point (Harrell) and six shell tempered sherds (typed as Nocona Plain). This data would seem to indicate a Late Neo-American age for this deposit.

The lower layer of light brown sandy clay (generally corresponding to Levels 5 through 8) contained less artifactual material, no pottery, and one projectile point fragment. This latter consisted of the broken base of a Pedernales point. The Pedernales point could indicate either a Late Archaic or an Early Neo-American date. The possible presence of Early Neo-American material in Test Unit 1, plus the presence of a Pedernales fragment in apparent Early Neo-American context at 41DN99, makes the latter dating more likely.

Test Units 3 and 4 were excavated in order to test for the presence and/or nature of cultural features, based on the results of the magnetometer survey conducted at the site in March of 1981 (Appendix 2). Test Unit 3 was placed over a moderate anomaly of 25 gammas. Test Unit 4 was placed over an extremely strong anomaly of about 105 gammas. Because of the extreme nature of this second anomaly, it was thought probable that some type of cultural disturbance was present, possibly historic in age.

Test Unit 3 was located about 2 m south of the site datum. Based on the stratigraphy found in Test Unit 2, 4.5 m south of Test Unit 3, it was known that the cultural deposits in this area of the site consisted of approximately 40 cm of dark brown sandy loam overlying terrace deposits of light brown to yellowish-brown, gravelly clay loam to at least 1.30 m below ground surface.

The artifactual content of Test Unit 3 was disappointingly small, and no cultural features were uncovered. The occurrence of several fragments of flexible metal cable close to the surface seems to explain the existence of the magnetic anomaly. Despite the early identification of the anomaly, Test Unit 3 was excavated to the base of the primary culture-bearing stratum to insure that no other cultural features were present.

As discussed previously, Test Unit 4 was placed over a very large magnetic anomaly located in the southern part of the site area, about 21 m south of the site datum. Neither of the earlier excavation units was located close to this area (Test Unit 1 was about 19.5 m to the east, while Test Unit 2 was 13 m to the north), but because the depth of the primary culture-bearing strata in these pits had varied from 25 to 40 cm, it was felt likely that the cultural deposit in Test Unit 4, if present, would be from 25 to 35 cm deep. A relatively large amount of metal was recovered from this unit, which accounts for the magnetic anomaly, but unfortunately, no features were located.

Artifacts

The prehistoric artifacts recovered from 41DN112 are presented in Table 3-11 while Table 3-12 shows the historic material recovered. The majority of the prehistoric artifacts consist of lithic debris, although 47 sherds also were recovered. Much of the material appears to be local quartzites from gravel deposits, but a major proportion of this debris is composed of various types of chert, presumably of regional origin. The majority of flakes were the result of bifacial cobble reduction, and heat treating does not appear to have been a consideration.

Table 3-11.
Prehistoric artifacts recovered: 41DN112

Type	Chert	Quartzite	Other	Total
FLAKES				
Primary	23	20	6	49
Secondary	221	116	15	352
Interior	305	149	98	552
Biface thinning	24	4	8	36
CORES		6		6
TOOLS				
Biface	8	8		16
Retouched pieces	9	14		23
Drill	1			1
Hammerstone		2		2
Projectile points				
Pedernales		1		1
Gary	1	1		2
Alba	1			1
Bonham	1			1
Harrell	1			1
Perdiz		1		1
Unidentified	1	1		2
GROUNDSTONE				
Metate	—	—	2	2
TOTAL	596	323	129	1048

Table 3-12.
Historic artifacts recovered: 41DN112

Type	Augering	Excavation Units					Total
		1	1b	1c	3	4	
CERAMIC							
Earthenware							
Plain decoration						1	1
Plain dec. with maker's mark		1					1
Stoneware							
Bristol/Glaze exterior with Albany/Glaze interior	1						1
GLASS							
Bottle fragments							
Body							
Unmarked							
Clear	14					8	22
Purple	1	2				5	8
Green	6	2			2		10
Brown	1		1				2
Blue-green						9	9
Pink					1	1	2
Unidentified				2		2	4
Molded/embossed							
Clear	1					3	4
Purple						1	1
Blue-green						2	2
Brown				1			1
Milk glass-white							
Jar liner	1						1
Other						1	1
Hollowware							
Unmarked				5			5
Press molded				5			5
METAL							
Wire nail			1			8	9
Staple						3	3
Barbed wire		1			1	1	3
Tin can						1	1
Unidentified	—	—	—	3	11	31	45
TOTAL	25	6	2	16	15	77	141

Two types of index fossils were collected; points and sherds (Figure 3-39). The ceramic inventory was concentrated in the upper dark brown sandy matrix. These shell tempered sherds have been typed as Nocona Plain and date to the Late Neo-American period. Seven projectile points were recovered from the site. Two of the points were severely damaged and unidentifiable. One of these appears to have been an arrow point associated with Level 1 of Test Unit 1.

Associated with the upper dark sandy soils were three points suggesting a Late Neo-American date. One Alba point was taken from Level 2 of Test Unit 1b, indicating a date ranging from the Early to the Late Neo-American period. From Level 2 of Test Unit 1c, a Bonham point was collected, suggesting an Early to Late Neo-American date as well. The Harrell point retrieved from Level 3 of Test Unit 2 is believed to date to the Late Neo-American in this geographical area. In addition, two broad, short Gary points were recovered from Level 3 of Unit 4 (Figure 3-39). Their occurrence in the dark brown matrix may indicate the association of this Gary sub-type with the Late Neo-American period. A similar style of Gary point was recovered from what is believed to be a Late Neo-American level of Test Unit 11 at 41DN102.

One Pedernales point base was recovered from the lower light sandy soil at the site. This type dates to the Late Archaic or Early Neo-American and was collected from Level 6 of Test Unit 2. No other datable artifacts were retrieved from this lower stratum at the site.

In an attempt to further evaluate the apparent stratified condition of the site, we separated the artifactual inventory from the controlled excavation units by the above matrix distinction. All materials from the upper stratum were compared with all materials from the lower stratum. Levels that were transitional were not considered in the analysis.

The examination proved inconclusive. Either the levels are mixed or there was little change in the technology by the occupants of the two strata. If the site can be assumed to be stratified, then the data suggest that site 41DN112 (like 41DN99) represents a similar adaptation during the Neo-American period.

Other artifacts retrieved from the site include over 500 fragments of shell and 86 fragments of bone. A heavy dependence on river mussels and game animals is indicated. The abundance of fire-cracked rock and two separate metate fragments suggests a seasonal occupation of some duration. The site can be seen as representing a seasonally reoccupied musselling base camp.

Augering and excavation at 41DN112 yielded 141 historic artifacts. There was no decorated earthenware. The one piece of stoneware has a Bristol slip interior with an Albany slip exterior, both covered by a clear glaze. The most common items are bottle glass (46%) and metal fragments (46%).

Summary

Testing at 41DN112 have revealed from 35 to 70 cm of relatively undisturbed cultural deposits in the southern portion of the site. These deposits contain two stratified levels representing occupation during the Neo-American period. A relatively large area of scattered fire-cracked rock about 35 cm down was identified in the southeastern site area. Some mixture with historic material has occurred within the upper 10 to 20 cm, but the bulk of the prehistoric deposit is undisturbed.

Figure 3-39. Artifacts from 41DN112. (Scale 1:1).

- a. Gary point from Test Unit 4.**
- b. Harrell point from Test Unit 2.**
- c. Alba point from Test Unit 1b.**
- d. Fragmentary Bonham point from Test Unit 1c.**
- e. Drill fragment from surface.**
- f. Gary point from Test Unit 4.**
- g. Biface fragment from Test Unit 1b.**
- h. Dart point from surface.**
- i.,j. Coarse tempered Nocona Plain pottery from Test Units 1b and 1.**
- k.,l. Shoulder fragments from Nocona Plain restricted neck jars from Test Units 1b and 1.**



a



b



c



d



e



f



g



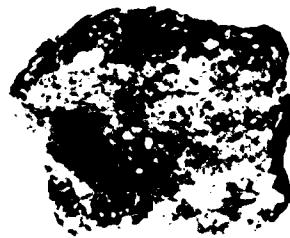
h



i



j



k



l



Most of the historic material was originally located where the modern house now stands. Examination and testing in this area indicate that the early historic occupation has been entirely destroyed by more recent construction.

Based on the results of this testing, the site is considered to have a very high research potential and is recommended for nomination for inclusion on the National Register of Historic Places on the basis of its prehistoric component.

41DN114

The site originally appeared to be eroding from the east face of the first terrace above Isle du Bois Creek, from about 186 m to 174 m. It is located about 0.6 km west of Isle du Bois Creek and 0.3 km north of an intermittent drainage which flows eastward to Isle du Bois Creek.

The site was recorded as a sparse surface scatter of quartzite flakes and cores, plus a hammerstone, a chert flake, and some bone. Slightly more artifacts were noted at the foot of the hill, where they had been deposited by erosion from upslope (Figure 3-40).

The site covers about 0.32 ha in area and stretches about 60 m north-to-south by 70 m east-to-west. The associated soil is a light brown Gowen clay loam presently undergoing moderate channel and sheet erosion.

Testing Results and Artifacts

Subsurface testing at 41DN114 was planned originally to consist of four auger holes, two at the top of the slope searching for buried material and two downslope. The soil matrix, however, was found to be extremely compact in places, and the number of total auger holes in 41DN114 was increased to six, of which three were very shallow due to the impenetrable nature of the clay.

None of the six auger holes in 41DN114 revealed any subsurface cultural deposit or artifacts. Based on these results, the site would appear to be totally surficial in nature. The inventory of artifacts (Table 3-13) observed on the surface of the site indicates primary lithic reduction activity was occurring, and possibly some hunting.

Summary

The lack of diagnostic artifacts makes the dating of 41DN114 difficult. The site is probably in reliable geological context, that is to say, up against the eroded slope of the first terrace and probably post-dates the start of the modern floodplain formation, following 1000 B.C. Based on this, the site could be Late Archaic or Neo-American in date. The preponderance of local quartzite raw material is suggestive of the Late Archaic.

Based on the lack of subsurface deposits, the small surface artifact sample, and the lack of research potential, it is recommended that no further work be done at 41DN114.

41DN115

Site 41DN115 is located on the edge of the second terrace of Isle du Bois Creek at an elevation of about 190 m on a slight southeast facing grassy slope with scattered deciduous tree-cover. The site is situated 0.85 km west of Isle du Bois Creek and

41 DN 114

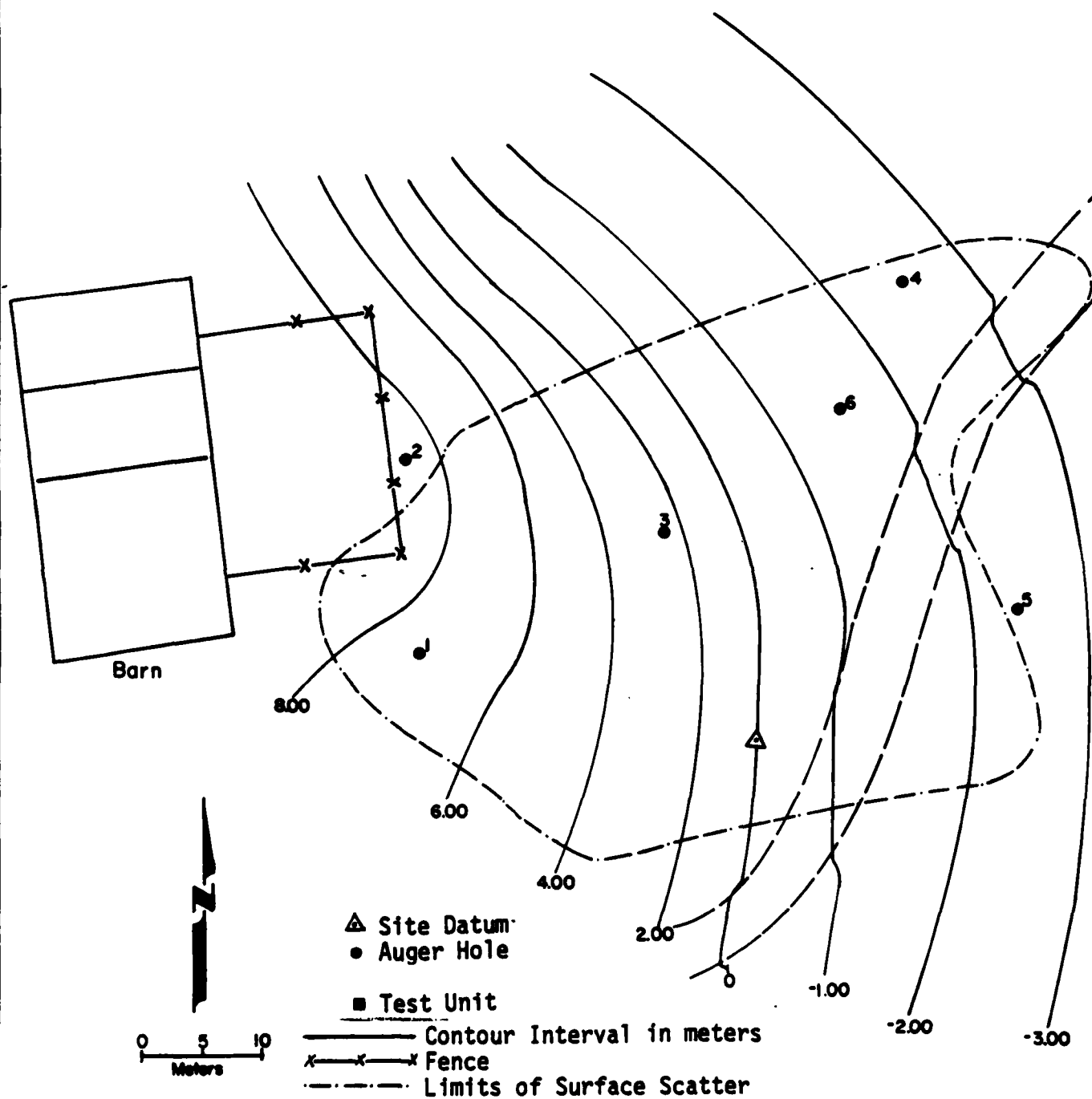


Figure 3-40. Contour map of prehistoric site 41DN114, showing locations of test units.

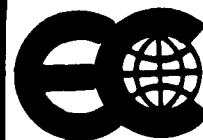


Table 3-13.
Surface artifacts recovered: 41DN114

Artifacts	Number
Flakes	
Primary	2
Secondary	10
Cores	3
Hammerstones	2
Bone fragments	<u>5</u>
TOTAL	22

0.2 km north of a small intermittent drainage which flows eastward into Isle du Bois Creek.

The site consists of a surface scatter of flakes and cores. The primary lithic material on the site is quartzite with a small amount of chert. The artifacts were noted in areas which have been slightly deflated by sheet erosion. These areas are relatively void of vegetation, and show gravel and pebbles on the surface. Few artifacts were noted outside these deflated areas. Denser concentrations of artifacts exist along the northern portion of the site. The material covers about 0.09 ha in area with a north-to-south dimension of about 35 m and an east-to-west dimension of about 40 m (Figure 3-41). The soil associated with 41DN115 is a light brown, Lindale clay loam with gravels and pebbles.

Testing Results and Artifacts

Subsurface testing at 41DN115 consisted of twelve auger holes placed around the central deflated area, in hopes of locating in situ material. None of the twelve tests revealed any subsurface cultural material, and six (2, 3, 5, 8, 9, and 11) hit a dense gravel layer within 30 cm of the surface. Only in the southeastern portion of the site could the auger penetrate to any appreciable depth, and this test revealed no buried material. Based on these data, it would seem that 41DN115 is entirely a surface site.

The initial survey of this site recorded a number of surface artifacts (Table 3-14) which indicate that primary and secondary lithic reduction were important activities on this site, plus some manufacture of tools and possibly hunting. It is possible that this site and the nearby 41DN114 are functionally linked together, with raw material collection and primary reduction occurring on 41DN114, while primary and secondary reduction and tool manufacture occurred at 41DN115.

Summary

Testing at 41DN115 indicated that the site is entirely a surface manifestation, with the artifacts either eroded or deflated. Based on these results, it is recommended that no further work be done on this site.

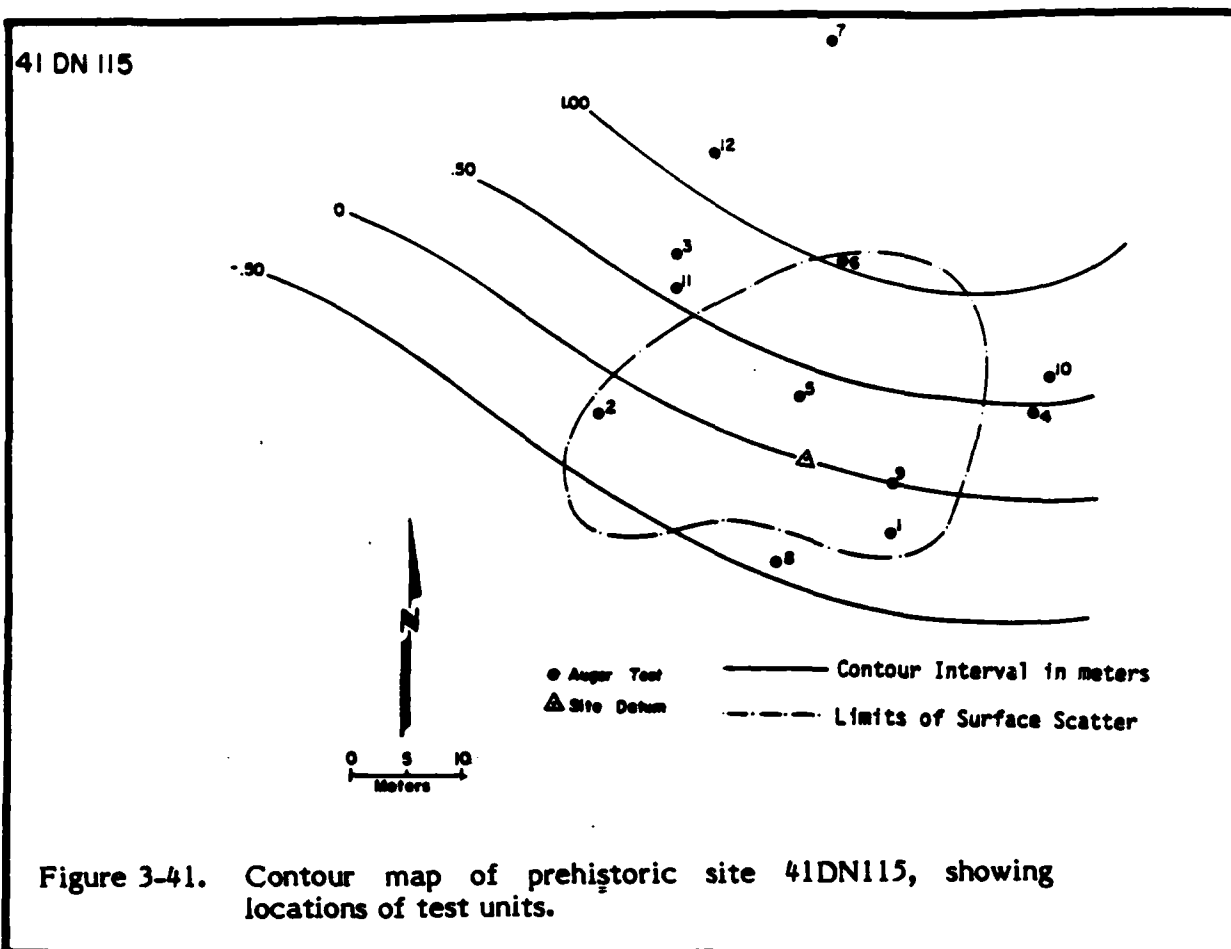


Table 3-14.
 Surface artifacts recovered: 41DN115

Artifacts	Number
Flakes	
Primary	3
Secondary	15
Interior	10
Biface thinning	2
Unidentifiable debris	2
Cores	2
Bone fragments	1
TOTAL	37

41DN197

41DN197 is located approximately 500 m south of FM 455 and 450 m from Isle du Bois Creek on a small drainage which flows southeast into Isle du Bois Creek. The site is situated on the first terrace above at an elevation of 169 m.

The site consisted of a few flakes and some fire-cracked rock. In 1972, Southern Methodist University recorded this site during a cultural resource reconnaissance. They reported some bone, flakes, fire-cracked rock, cores, shell, a grinding stone, and two projectile points. The surface showed evidence of erosion, thus the artifactual material may have eroded from the drainage. The area of occupation is approximately 25 m north-to-south and 32 m east-to-west (Figure 3-42).

Testing Results

Testing operations at 41DN197 consisted of several shovel tests and the excavation of one test pit. None of the three shovel tests revealed any cultural material. Test Unit 1 was placed 9 m west of the datum at an angle of 270°. This excavation unit reached a depth of only 36 cm, with no artifactual material recovered. Some charcoal flecks were observed throughout the matrix of Level 1.

At the completion of the excavation unit, the area on both sides of the drainage was re-surveyed and shovel tested to determine if the site had been correctly plotted. A few flakes were observed on the surface, but the shovel tests yielded no artifacts.

Summary

41DN197 was recorded in 1972 as a result of a preliminary reconnaissance of the project area. At that time, the site had recently been bulldozed and a relatively large number of artifacts were on the surface. Since then, the site has been destroyed by erosion.

Because all efforts to locate buried cultural deposits in the area of 41DN197 failed, it is recommended that no further work be done in connection with this site.

41DN199

Site 41DN199 is located 0.5 km east of Isle du Bois Creek on an intermittent drainage which flows southwest into the Elm Fork of the Trinity (Figure 3-43). The site is situated on the first terrace of Isle du Bois Creek at an elevation of 160 m.

The site is a small lithic scatter which parallels a 75 m stretch of the drainage. The remains consist of fire-cracked rock, two quartzite flakes, and a quartzite biface. Most of the material is believed to have eroded from farther up the stream. The artifact scatter covers an area of about 0.06 ha, being 75 m north-to-south and 8 m east-to-west.

Testing Results

Subsurface testing on 41DN199 consisted of nine auger holes placed in various locations along both sides of the drainage, and one excavation unit. All of the auger holes were sterile, and all were excavated to a depth of at least 43 cm below surface.

41 DN 197

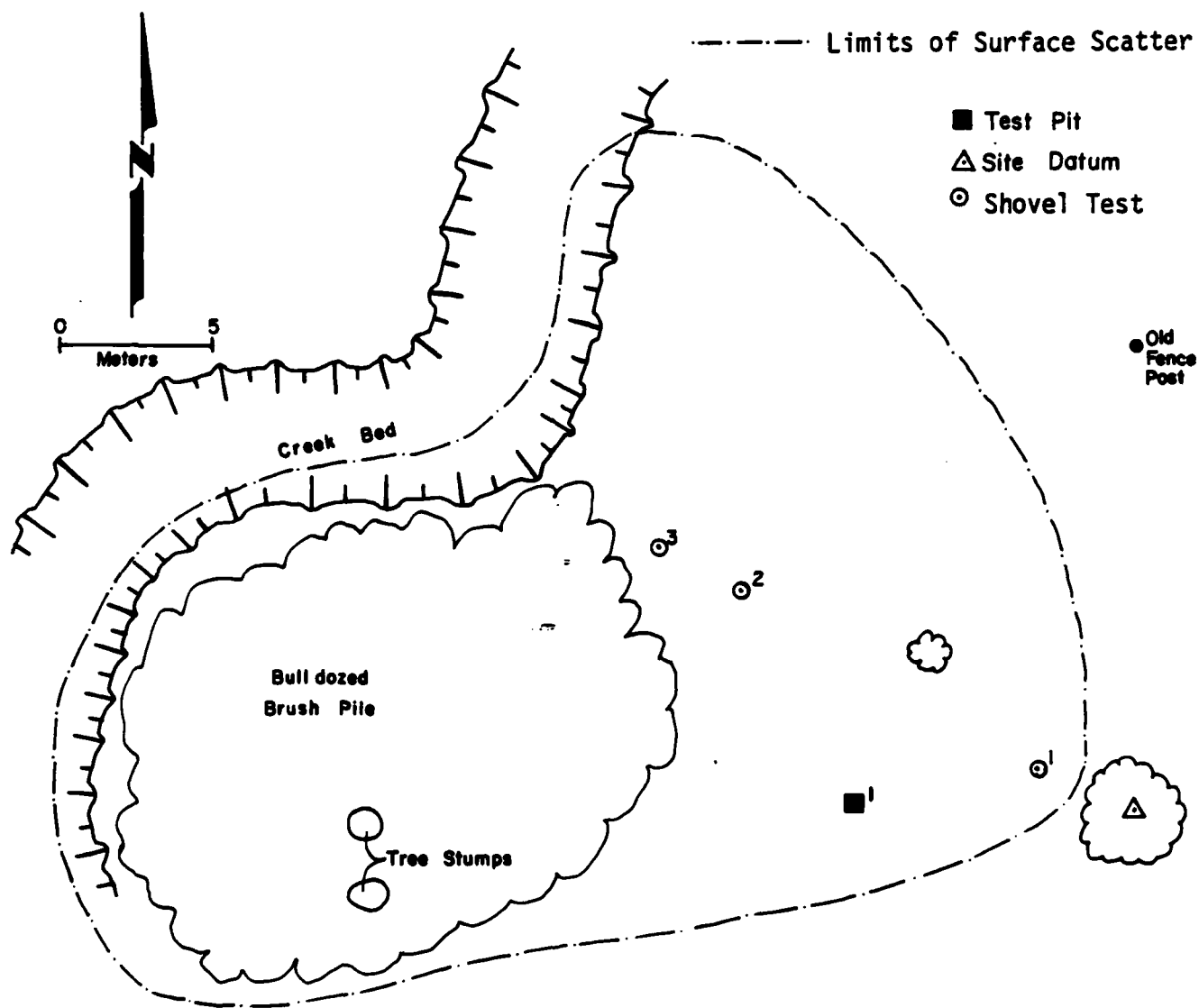
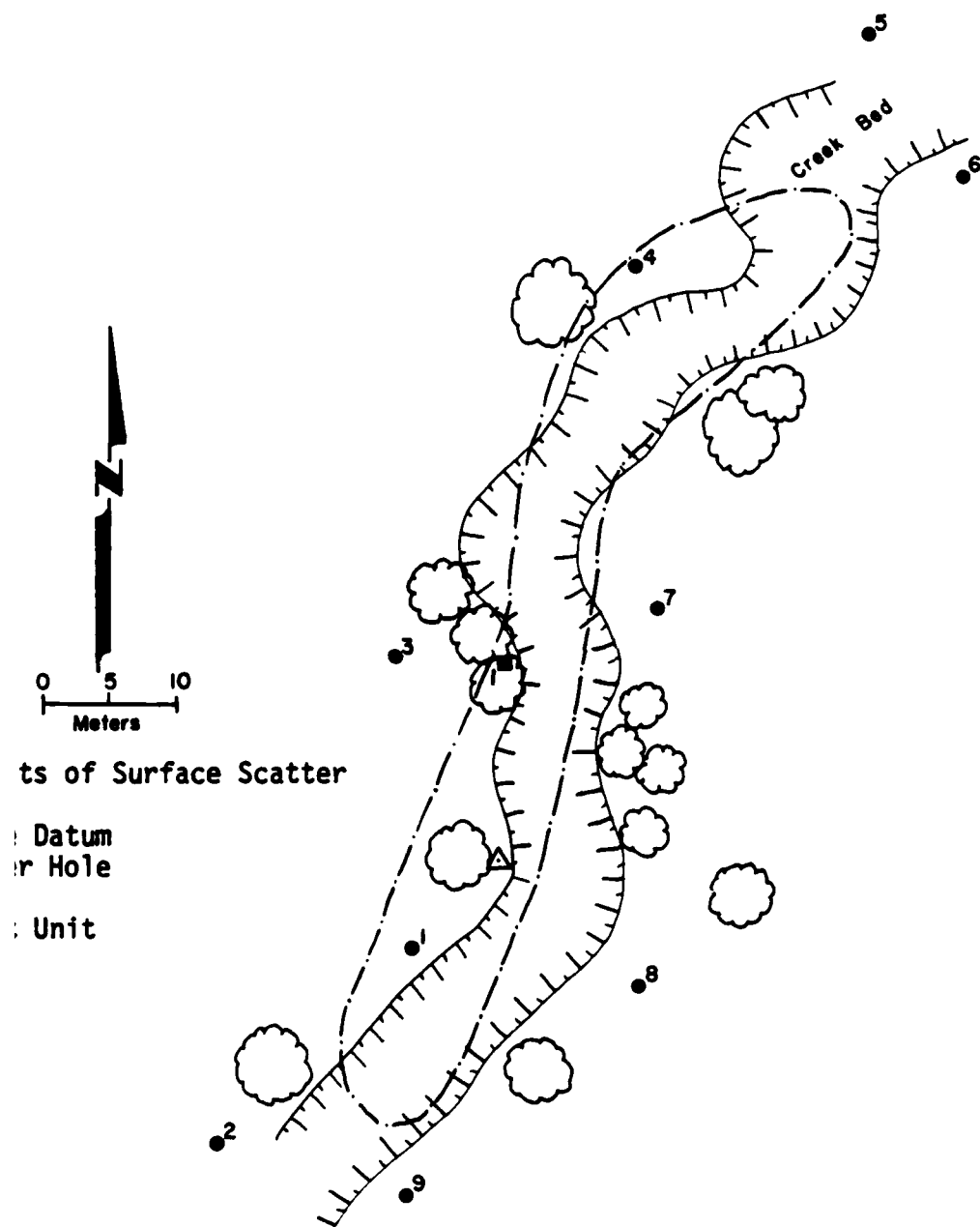


Figure 3-42. Map of 41DN197, showing locations of test units.



41 DN 199



Plan of prehistoric site 41DN199, showing locations of test units.



Test Unit 1 was located approximately 13 m due north of the datum, underneath two large oak trees. It was also 1.0 m west from the embankment of the drainage. Test Unit 1 was taken down to 160 cm below ground level in arbitrary 10 and 20 cm levels. No artifacts were found in any of the levels, although charcoal flecks were observed in Levels 2 through 7.

Summary

41DN199 originally was recorded as a scatter of prehistoric material in an eroded channel. Subsequent testing on both banks of the channel failed to reveal any buried cultural material. Based on the results of this work, it is recommended that no further work be done on 41DN199.

41DN217

Site 41DN217 is located on a small T2 terrace ridge extending north toward the Elm Fork of the Trinity (Figure 3-44). It is approximately 0.5 km west of the Elm Fork and 10 m northeast of a small intermittent drainage, at an elevation of 180 m. The site is approximately 1.4 ha in area and is 160 m from southwest-to-northeast and 90 m from east-to-west.

The site is a surface lithic scatter. Surface artifacts include flakes, bifaces, a quartzite cobble, a metate fragment, and a Yarbrough point. The ground visibility at the time of discovery was quite poor due to numerous post oak leaves and grass. A majority of the observed artifacts were found along the drainage, probably eroding from the top of the ridge.

Testing Results

Testing consisted of 11 shovel tests and 1 test unit. Flakes were recovered from Shovel Tests 3 and 4. Test Unit 1 was placed between the two pits which yielded flakes (Figure 3-44). Although artifacts were recovered from Levels 1 through 4, the artifact density was greatest in Level 2. Level 5 yielded no artifacts. The north profile of Test Unit 1 is shown in Figure 3-45. The results of subsurface testing at 41DN217 are presented in Appendix 3.

Artifacts

The analysis of the lithic artifacts from 41DN217 is summarized in Table 3-15. The Yarbrough point recovered is a quartzite. This indicates an Archaic date for the site; however, three sherds of Nocona Plain were recovered from Level 2 of Test Unit 1 which indicate a Late Neo-American occupation. In addition, a moderate amount of shell also was recovered.

Summary

Site 41DN217 consists of a sparse surface scatter of artifacts covering a large area, with a small subsurface deposit near the center of the site. This subsurface deposit is up to 50 cm deep, with a moderate amount of artifactual material.

The site initially was interpreted as a Late Archaic to Neo-American seasonal microband camp, a type apparently duplicated elsewhere in the project area. Based on the low density of artifacts, the lack of a well-preserved subsurface deposits, and the

41 DN 217

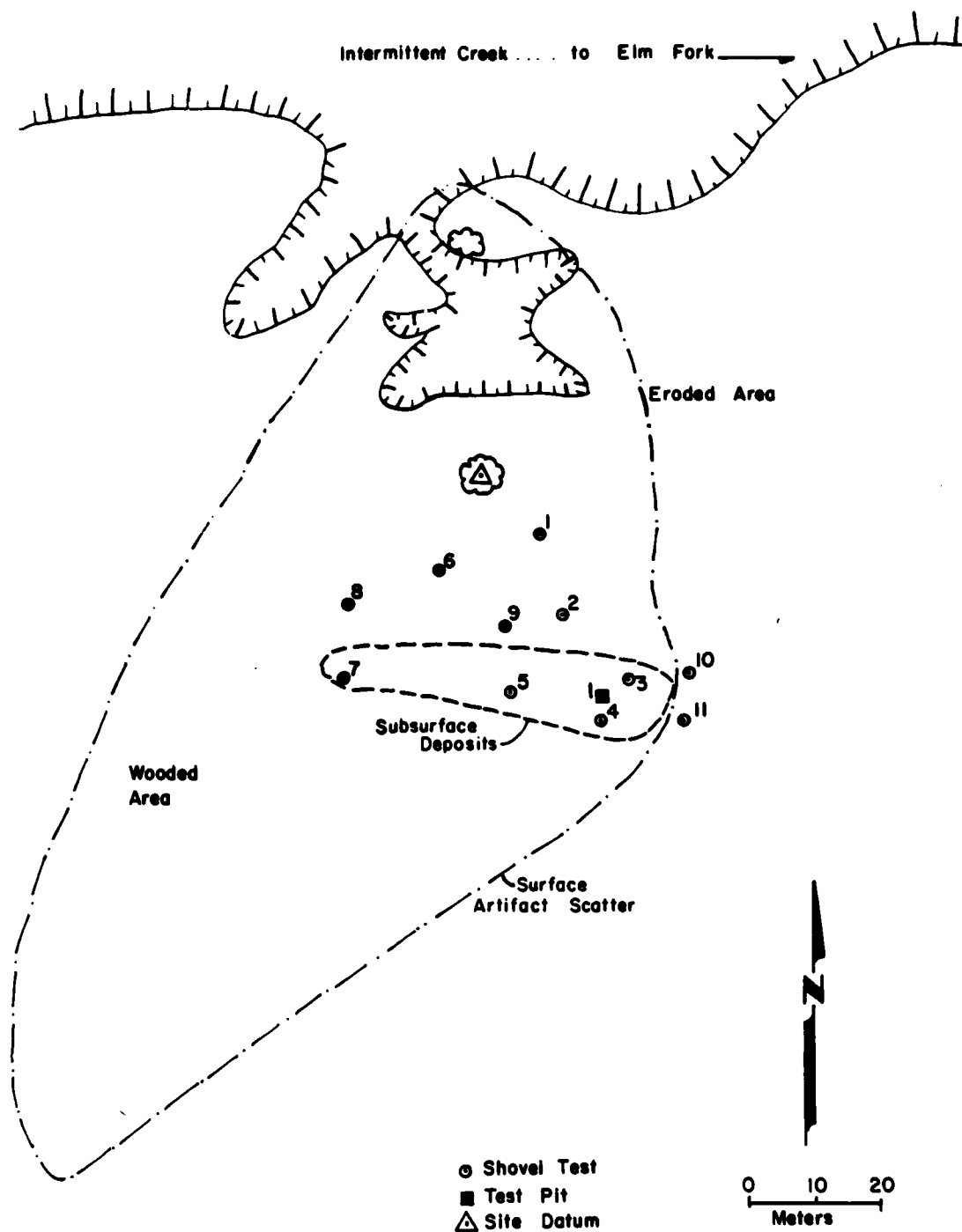


Figure 3-44. Plan of prehistoric site 41DN217, showing locations of test units.



41 DN 217-

NORTH WALL

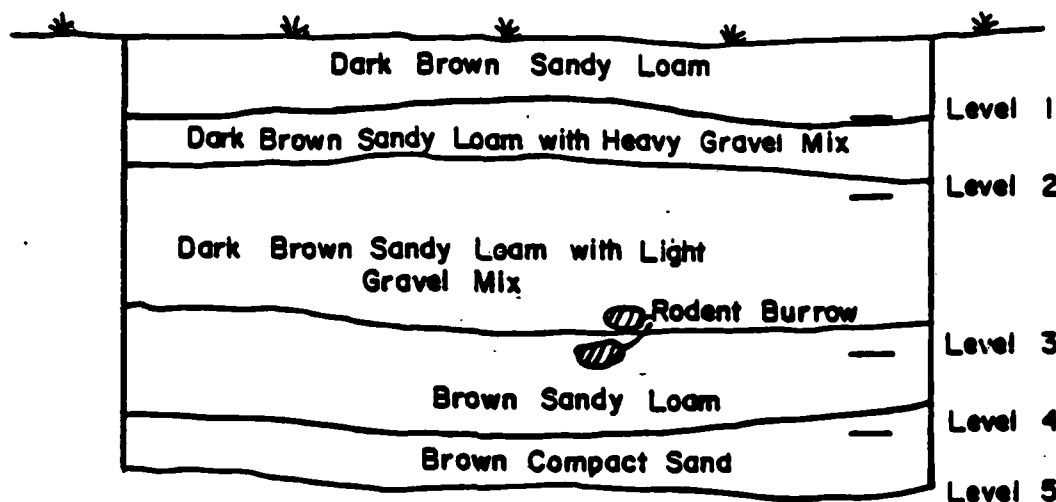


Figure 3-45. Northern profile of Test Unit 1, 41DN217.

Table 3-15.
Prehistoric artifacts recovered: 41DN217

Type	Chert	Quartzite	Other	Total
FLAKES				
Primary	6	6		12
Secondary	8	11	1	20
Interior	2	1		3
Biface thinning				
CORES				
		1		1
TOOLS				
Projectile points				
Yarbrough		1		1
Hammerstone		1		1
Biface	1			1
TOTAL	17	21	1	39

likelihood of duplication of research potential elsewhere, it is recommended that no further work be done on 41DN217.

41DN219

Site 41DN219 is adjacent to a gravel road which runs north from Cemetery Road approximately 1.0 km east of the Cosner Road junction. It is east of the gravel road and north of Cemetery Road. The site is situated on the north slope of a small knoll at an elevation of 195 m, and covers an area of about 0.11 ha, measuring 50 m north-to-south by 30 m east-to-west.

Quartzite flakes and cobbles were observed on the surface. All flakes were of a low quality quartzite and all exhibited cortex.

Testing Results

Three shovel tests were placed in this site (Figure 3-46). No artifacts were found in any of the shovel tests. The site could not be augered because of the high gravel content in the terrace deposit. This site has no depth and probably functioned as a primary quarry site at which the initial selection and reduction of quartzite nodules took place. It is similar to 41DN89.

Summary

As was the case for sites 41DN89 and 41DN98, testing of 41DN219 failed to reveal any subsurface deposit. Based on these results, it is recommended that no further work be undertaken at 41DN219.

Prehistoric Summary

Based upon the new data collected by the testing of the sites in the Lake Ray Roberts dam construction area, a refined model of the prehistoric settlement of this area may be developed beyond that presented as a result of the survey (Skinner et al. 1982). As was the case for the survey, testing operations failed to reveal any prehistoric occupation earlier than the Middle Archaic. An hypothesis to account for this fact has been presented elsewhere (Skinner et al. 1982).

Middle Archaic (ca. 4000 to 1500 B.C.) occupation has been positively identified at site 41DN102 and possibly at site 41DN80. There are suggestions of a Middle-Late transitional or an early Late Archaic occupation at 41DN101 (Figure 3-47). Unfortunately, it is currently uncertain which deposits at 41DN102 date to the Middle Archaic, because the Middle Archaic diagnostics are from disturbed contexts. However, a higher proportion of prairie grassland fauna from Level 5 of Test Unit 1 at that site (Appendix 1) suggests that this level and below are Middle Archaic. A regional extractive pattern which included the prairies outside the lake area would seem to be indicated by the limited utilization of the river lowlands during this period. Nothing can be said with certainty regarding raw material utilization during this period (the mixed assemblage from 41DN102 consisted of 49% chert and 39% quartzite), but the original definition of the Carrollton focus as not relying on local material agrees with a general model of a regional extractive system.

The Late Archaic period (1500 B.C. to A.D. 600) apparently represents a population increase over the previous period, or at least a more intensive and permanent utilization of the construction area. Occupation at 41DN102 continued, and was

41 DN 219

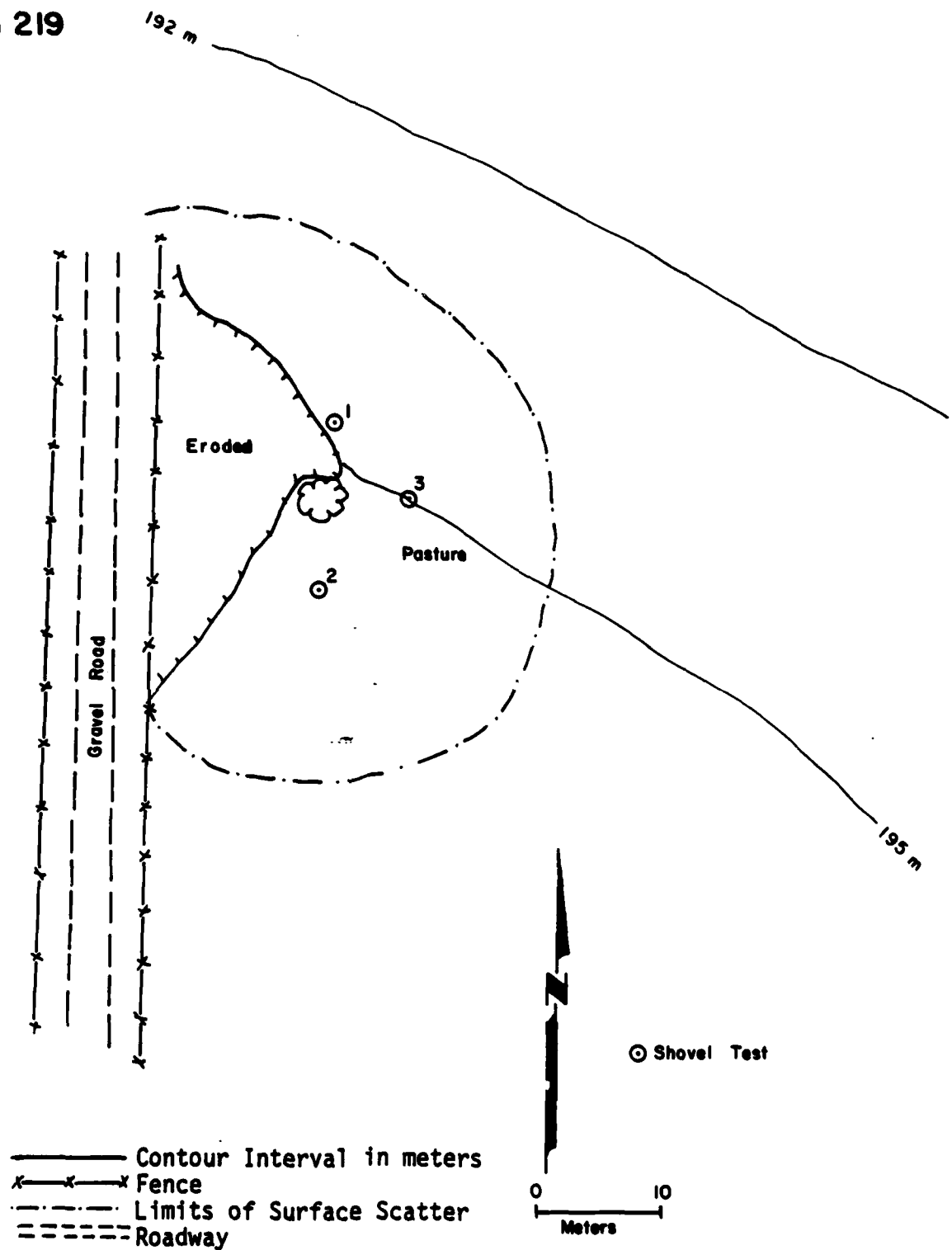


Figure 3-46. Plan of prehistoric site 41DN219, showing locations of test units.



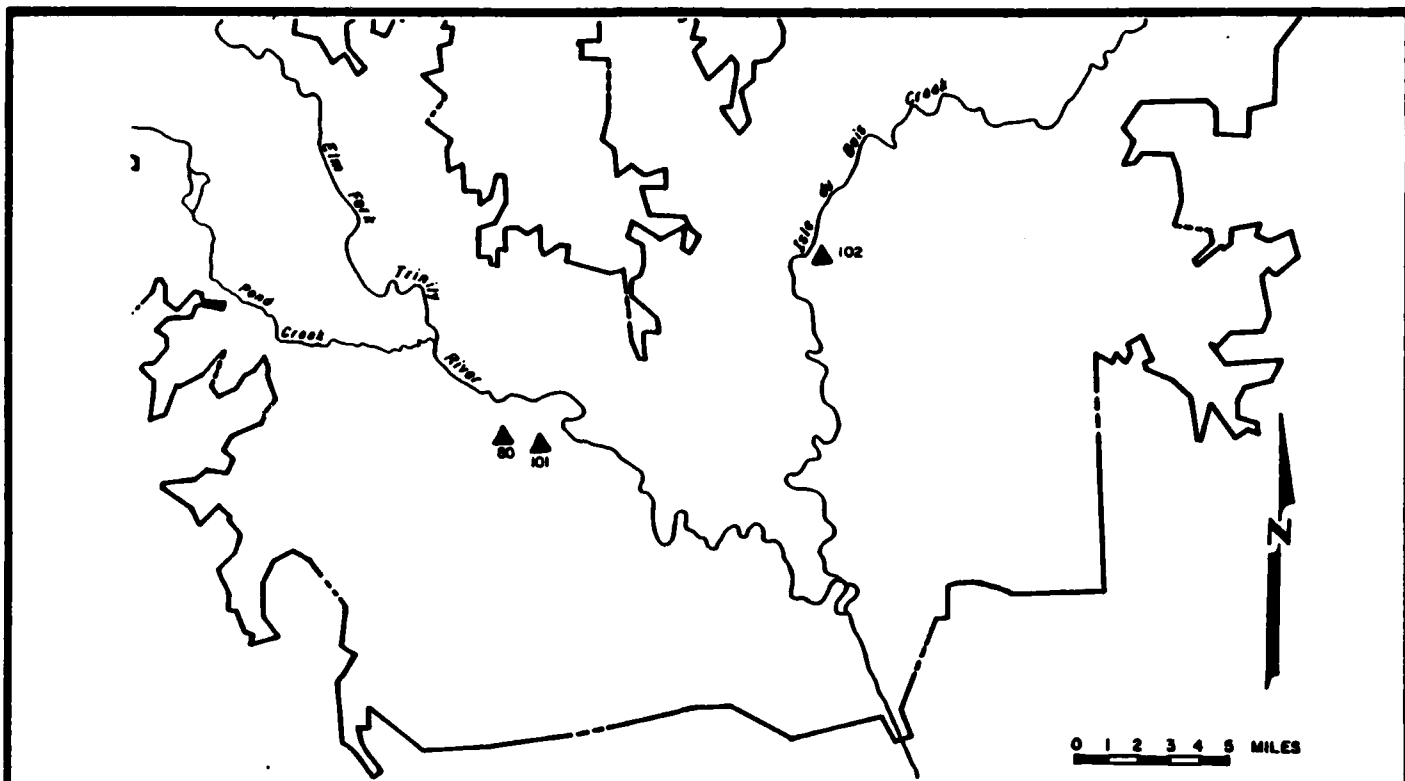


Figure 3-47. Middle Archaic settlement pattern in the Lake Ray Roberts construction area.

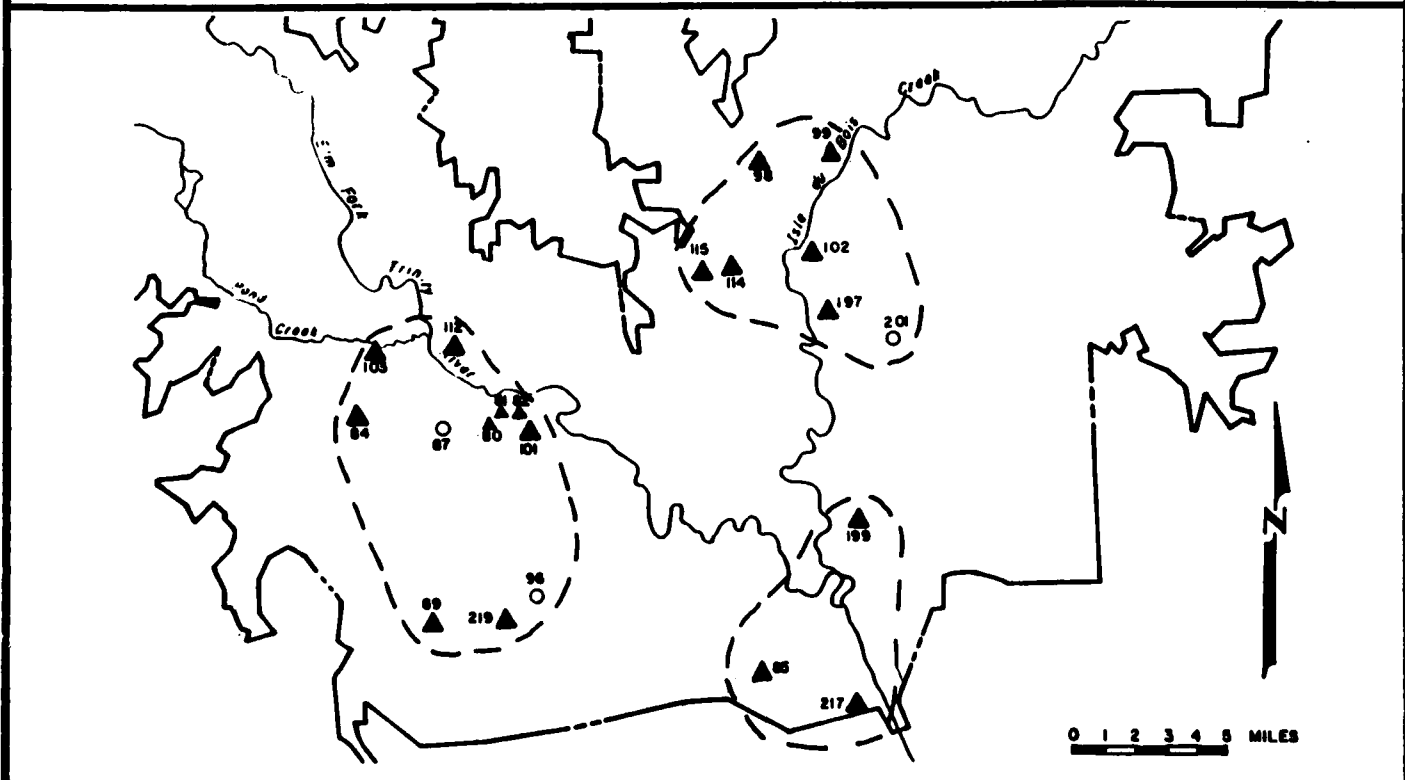


Figure 3-48. Late Archaic settlement pattern in the Lake Ray Roberts construction area.



apparently accompanied by a faunal shift to a more local, forest extractive pattern (Appendix 1). This increased localization of resource extraction also is indicated by the use of the locally available quartzite gravels and the nearby Antlers Formation cherts. The isolated Late Archaic assemblages average from 45 to 70% chert, all of it regionally derived. It is suggested that this is indicative of a thorough knowledge of the local raw material.

It is hypothesized that there were two centers of seasonal activity within the limits of the construction area during the Late Archaic period, with an apparent third south of the lake area (Figure 3-48). The first of these is believed to have centered around the macroband seasonal base camp at 41DN102, and to have included seasonal activities at 41DN98, 41DN99, 41DN114, 41DN115, and 41DN197. The second activity center was located on the terrace which contained sites 41DN81, 41DN82, and 41DN101 during this period, and included 41DN84, 41DN89, and 41DN103. The third activity center is believed to be an undiscovered site (or a series of sites) south of the damsite which included 41DN85, 41DN199, and 41DN217.

The exact relationship of these three activity centers to each other is at present unclear, but it is most probable that they represent seasonal macroband base camps with associated microband camps or activity loci. Only further research can determine whether they were independent settlement systems, or were related.

The Neo-American period within the construction area shows a radical shift in settlement which is hypothesized to be the result of population redistribution, although the faunal evidence does not indicate a major subsistence shift (Figure 3-49). Only three sites within the construction area appear to have Early Neo-American occupations (41DN99, 41DN102, and 41DN112), and all appear to represent permanent or semi-permanent campsites. Almost no grit tempered pottery was found in any of the Early Neo-American levels, and it seems that the Early Neo-American period in the lake area was characterized by limited ceramic utilization.

In general, settlement during this period seems to have withdrawn upstream on both the Elm Fork and Isle du Bois Creek. In the former case, occupation seems to have centered at 41DN112, which was probably linked with 41DN17 to the north; while in the latter, on 41DN99 and 41DN102. No evidence for Early Neo-American utilization was found in the area below FM 455.

Late Neo-American settlement in the construction area remained largely unchanged from that of the earlier period, although some utilization of the site 41DN79 and 41DN81 area is indicated (Figure 3-50). A possible Late Neo-American occupation also is noted at 41DN217, but this site is probably too far south to be functionally linked with either 41DN112 or 41DN102. Pottery is apparently more abundant during this period, and its abundance at 41DN112, together with the reported finds at 41DN17 (Skinner et al. 1982), suggests that the Elm Fork area above FM 455 was of more importance than the 41DN99-102 site axis. This suggests an increasing orientation toward the prairie west of the lake area during the Late Neo-American period.

Based on preliminary comparisons at 41DN99 and 41DN112, there appear to have been no major changes in lithic technology or raw material utilization during the Neo-American period. In fact, raw material utilization remains generally the same as that during the Late Archaic period: with 45 to 60% chert and 30 to 35% quartzite.

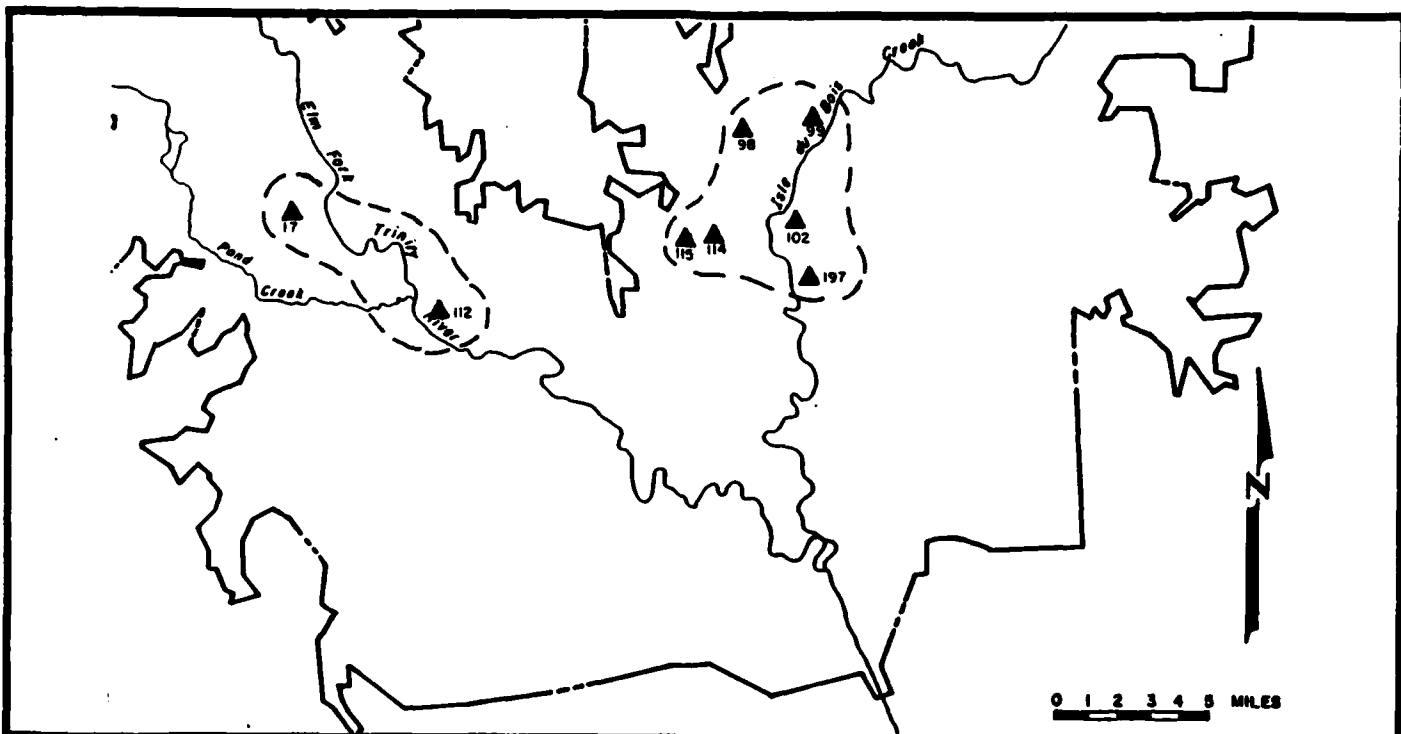


Figure 3-49. Early Neo-American settlement pattern in the Lake Ray Roberts construction area.

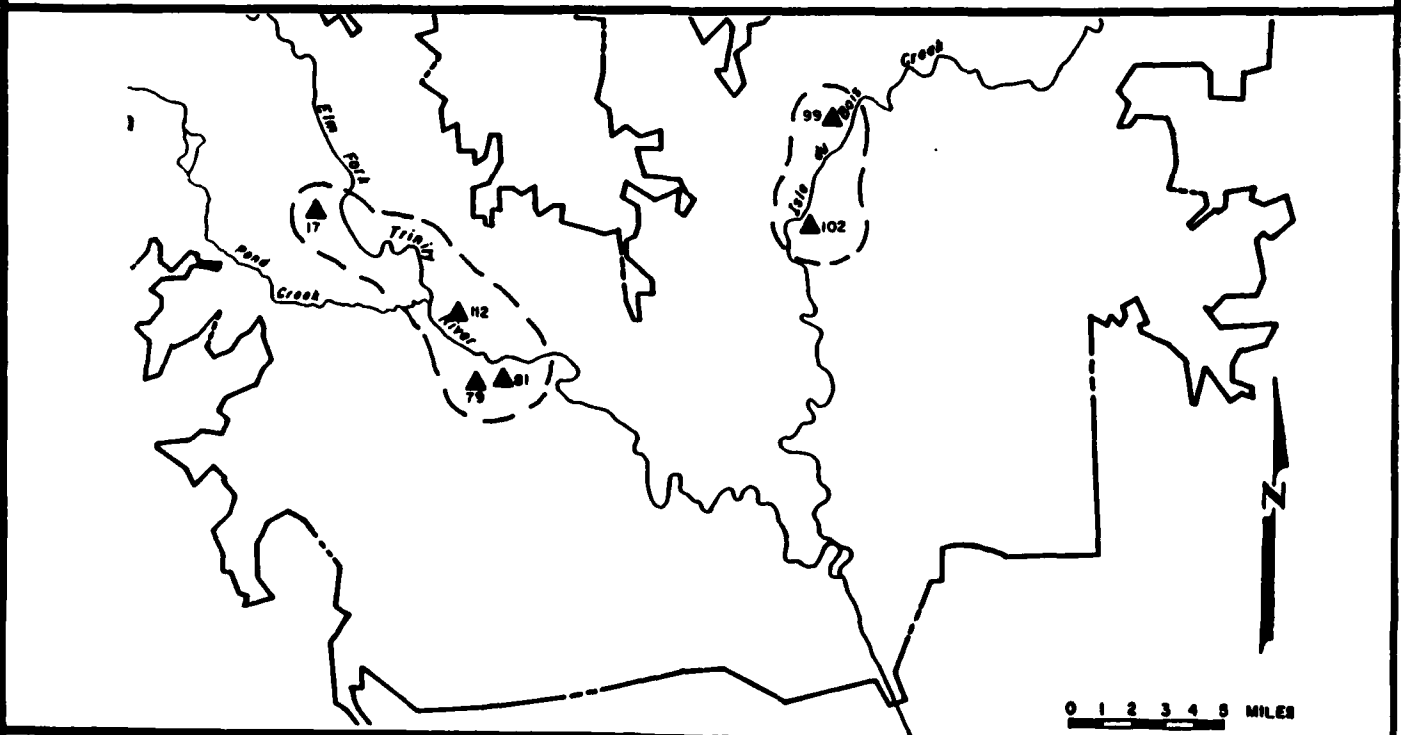


Figure 3-50. Late Neo-American settlement pattern in the Lake Ray Roberts construction area.



IV. HISTORIC SITE TESTING

Introduction

Within this chapter, the results of testing 39 archaeological and architectural historic sites are presented. Of these, eight yielded prehistoric artifacts. These are 41DN76, 41DN77, 41DN87, 41DN91, 41DN94, 41DN96, 41DN97, and 41DN194. An additional four sites have historic components, but they have definite prehistoric components and are described in Chapter III. Presented for each site is a site description, a discussion of the testing procedures and results, tabulations of artifacts recovered, and a summary which contains brief recommendations. Some of the site discussions also have an historical background section presenting the results of archival research as well as information gained from interviews. These site-by-site presentations are followed by a section on the historical research overview. The final summary presents the results from a detailed artifact analysis coupled with historical information on the project area.

41DN76

Site 41DN76 is an historic farmstead site with associated refuse. The site is situated on the edge of the T1 terrace in a grassy cedar-elm parkland. The site is 1.25 km east of the Elm Fork of the Trinity River and 1 km west of Isle du Bois Creek at the 180 m contour.

The site consists of the apparent outline of a two-room structure on the north, delineated by distinct vegetational growth. One informant, Mr. Paul Gray, also reported the presence of a former standing structure which he had demolished. The location of the structure is covered by a large rubbish pile on the western side of the site (Figure 4-1). Mr. Gray reported that this structure had been built in 1895 by a Mr. C.E. Newton, and abandoned by about 1917. He had no knowledge of the existence of any structures north of this building. A farmstead, along with several other structures to the northwest, is shown at this location on a 1917 soil survey map for Denton County. This would place occupation of the site late in the Competition period (1875-1935). Dense concentrations of historic household debris, including broken bottle glass, decorated and plain earthenware, and metal fragments were noted primarily on the western and southern margins of the site. Lesser concentrations of these artifacts were observed over the entire site. The surface artifact scatter is approximately 106 m north-to-south by 55 m east-to-west and encompasses an area of 0.37 ha.

The soil associated with the site is Lindale clay loam, a powdery grey-brown loam. The site area is a pasture and is covered by medium length grasses and small shrubs. It appears that little erosional activity has occurred in association with the site, although a service road bisects the artifact concentration.

Testing Results

Testing at 41DN76 involved subsurface and surface investigations. Subsurface investigations consisted of seven auger holes and one test unit placed at various locations in the southern part of the site and three test units in the northern part of the site (Figure 4-1). Following completion of the initial auger testing, two collection lines were laid out in a "T" shape, covering an area of 60 m north-to-south by 72 m east-to-west.

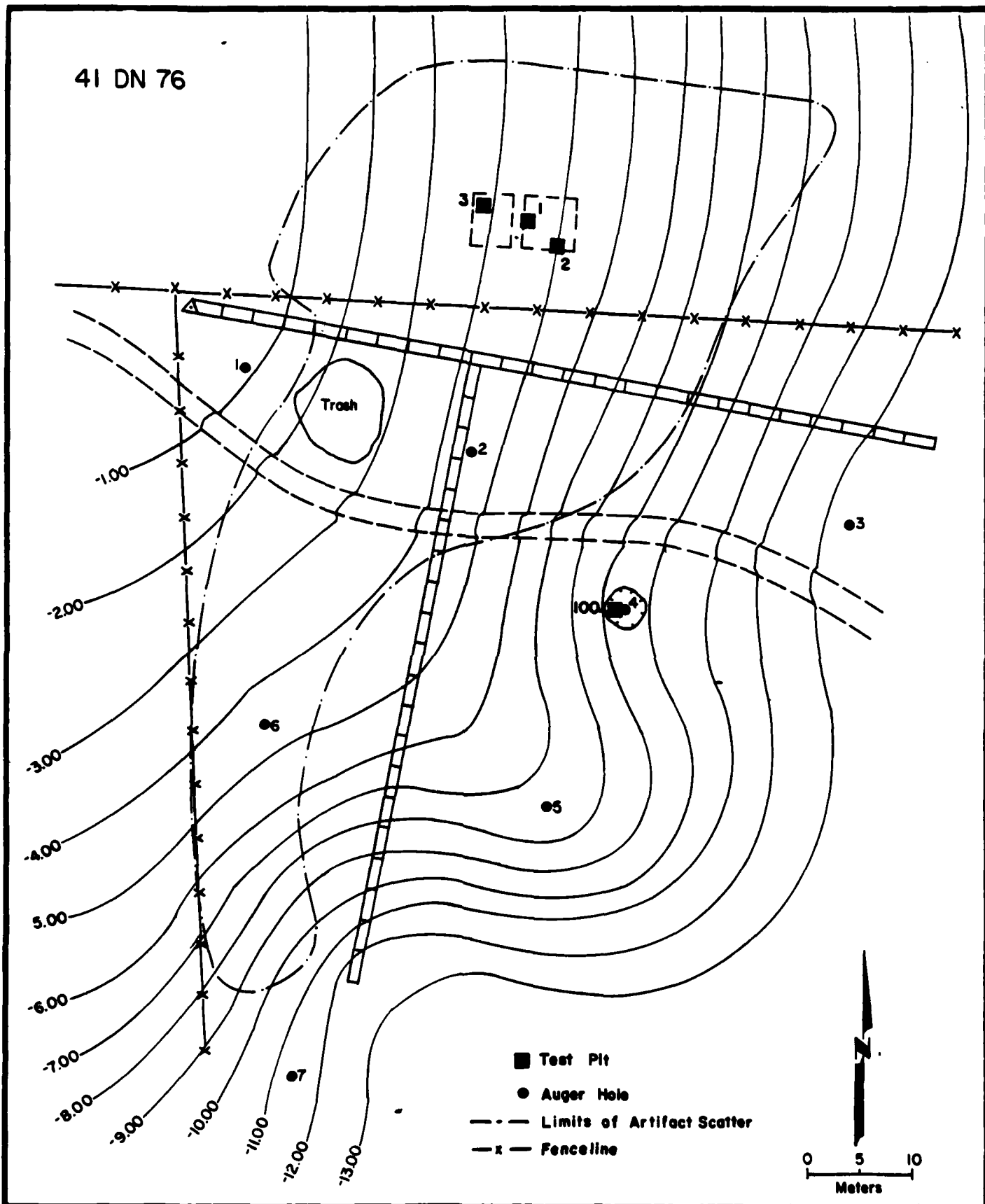


Figure 4-1. Contour map of 41DN76, showing locations of test units.



Of the seven auger holes, only number 5 was not sterile. This auger hole contained a single sherd of blue transferware in the upper 20 cm. Bedrock was encountered in Auger Holes 1, 2, 4, 5 and 6 between 5 cm and 37 cm. From the collection lines, a sample of 33 artifacts was recovered from within an area of 54 m² in the site center, averaging only 0.61 artifacts per m², or 1.64 m² per artifact. Figure 4-1 shows the location of the collection transects.

Test Unit 1 was located on the western edge of the larger structural foundation. Artifacts collected from Level 1 consisted of glass, metal fragments, earthenware, flakes, and a chert biface. Most of the artifacts were within the upper 5 cm, and artifact density diminished significantly toward the base of the level. This unit was abandoned at the base of Level 1 because limestone bedrock was encountered. The matrix of the entire excavation unit consisted of a very compact, dark brown loam.

Test Unit 2 was located near the southeastern corner of the larger foundation. This unit was excavated to a depth of only 20 cm, and all of the artifacts recovered were found in the upper 10 cm. Level 2 yielded no artifacts, and the test pit was terminated following the completion of this level. At the base of Level 1, limestone bedrock was encountered on three corners of the unit (the exception was the southeastern corner), and it covered approximately one-third of the unit floor. As Level 2 was taken down, more limestone was exposed, and because it was apparent that bedrock had been reached, the unit was terminated. The matrix of Levels 1 and 2 consisted of dark, grayish brown (10 YR 4/2) silty loam.

Text Unit 3 was placed in the northwestern corner of the smaller foundation. As was the case for Test Unit 2, this unit also was taken to 20 cm. Level 1 yielded largely historic artifacts, but some prehistoric material also was recovered. The base of Level 1 exposed some evidence of root disturbance and a few limestone rocks. The artifact density dropped almost to zero in Level 2, yielding only one metal fragment. Solid limestone bedrock was reached at 20 cm in the northeast corner, 15 cm in the northwest, 12 cm in the southwest, 15 cm in the southeast, and 19 cm in the center of the unit. The matrix of Levels 1 and 2 consisted of dark, grayish brown (10 YR 4/2) silty loam.

Test Unit 100 was placed in the small depression on the southeastern margin of the site, which was believed to be a root cellar. Initial augering of this feature (Auger Hole 4) had revealed no artifacts, and encountered rock at a depth of 14 cm. Despite the unpromising results of the auger hole, the surface configuration suggested the presence of a root cellar, and it was decided to investigate further with a test pit. This unit was begun after completion of the other three, and was placed next to Auger Hole 4.

Test Unit 100 originally was laid out as a 1 x 1 m test unit, but at the base at Level 2, after encountering an extremely hard stony layer, the size of the test was modified to a 0.5 x 1 m area to speed excavation.

In Appendix 4, the stratigraphy of Test Unit 100 is provided, along with information on the stratigraphy of other historic sites. The profile of the west wall of Test Unit 100 is shown in Figure 4-2. The base of the depression, which proved to be a root cellar, was reached at about 94 cm. The lower four levels contained most of the artifacts which appear to have originated from the 47 to 53 cm thick layer of brown clay at the base. This deposit probably represents trash thrown into the cellar after its abandonment. The 14 to 24 cm thick layer of brown clay loam with stones above this is probably roof fall deposited when the cellar collapsed. The brown clay loam above this is sterile and apparently of recent origin.

One interesting feature of this root cellar was an approximately 14 cm high bench cut into the sterile yellow clay which formed the cellar floor (Figure 4-3). This bench was oriented approximately 100 degrees east of true north, and presumably formed a raised area of indeterminate width along the southern side of the root cellar.

Artifacts

The 264 items in the historic assemblage were recovered by controlled surface collection, augering and test excavation (Table 4-1). As is the case with most historic sites, a considerable amount of surface debris accounted for the total artifactual inventory. Over 75% of the ceramics and about 50% of the glass were collected from the surface. However, nearly all of the metal retrieved from the site was collected from the four excavation units. The only material from the seven auger holes was one earthenware fragment.

The entire assemblage was composed of approximately 5% ceramic, 20% glass, and 75% metal. This included one porcelain doll arm, one hinge fragment, one wine bottle handle and one watch plate from an Ingersoll watch made until the 1930s.

A few prehistoric artifacts were recovered from 41DN76. These include a chert biface from Test Unit 1. Two secondary flakes, one chert and one quartzite, were recovered from Level 1 of Test Unit 3. A core was recovered from Level 3 of Test Unit 100, the excavation unit placed in the historic root cellar. Shell also was recovered from the fill of this unit. 41DN76 was the location of an historic farmstead and it was also the locus of prehistoric activity.

Summary

Testing at 41DN76 has shown that this site is a moderate surface scatter of artifacts which is eroded and apparently heavily disturbed. The site has very little depth, and the root cellar contains little primary or secondary trash. No further work is recommended at this site.

41DN77

Site 41DN77 is an historic site located on the T2 terrace, atop a knoll at an elevation of about 207 m. No significant sources of water exist in close proximity to the site except for a small intermittent drainage 0.75 km southwest of the site.

The site consists of a large surface scatter of historic household artifacts accompanied by a limestone-lined well, and an apparent root cellar (Figure 4-4). The surface artifacts included broken bottle glass, plain and decorated earthenware, and unidentifiable metal fragments. The surface scatter was located primarily on the top of the hill, and on the south slope. Two areas of high artifact density were noted in the south-central area of the site. The well is situated north of the densest artifact concentration and is approximately 80 cm in diameter. The cellar is located approximately 6 m north of the well, and consists of a rectangular depression in the ground. It is approximately 4 m in diameter and extends 80 cm below the level of the ground. A second well was reported by the landowner, Mr. B. E. Switzer, as being southwest of the center of the site in the area of a modern junk pile. A search was made of the area, and no trace of a well was found. A medium-sized, natural sinkhole was found southeast of the site, however, and this may be what Mr. Switzer was referring to. Based on the location of the root cellar and the well, plus the location and extent of the surface artifact scatter, it is suggested that the house associated with

41 DN 76-TEST UNIT 100

West Wall

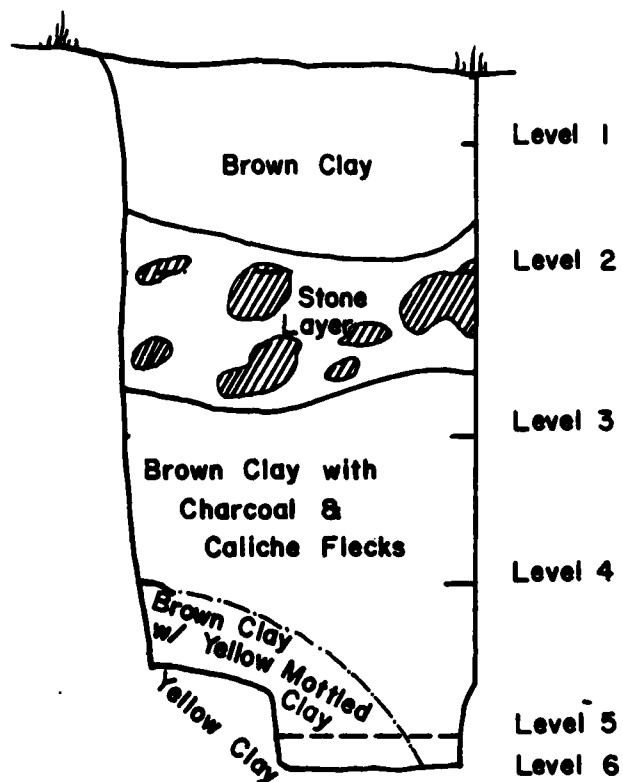
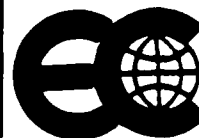


Figure 4-2. Western profile of Test Unit 100, 41DN76.





4-3 Floor of the root cellar and the step-bench along the south side, X.U. 100, 41DN76.



Table 4-1.
Historic artifacts recovered: 41DN76

Type	Surface Augering	Test units				Total	
		1	2	3	100		
CERAMIC							
Earthenware							
Plain decoration	4					4	
Plain with maker's mark	2					2	
Mold decorated				1		1	
Flow blue transfer print		1				1	
Stoneware							
Albany/Glaze	2					2	
Unident. slip/unglazed		1				1	
Porcelain							
Plain decoration	1					1	
Doll arm	1					1	
GLASS							
Bottle fragments							
Lip/neck							
Tool-finished—clear	1					1	
Machine-finished							
Clear	1					1	
Purple	1					1	
Unidentified							
Clear	1					1	
Body							
Unmarked							
Clear	6	10				16	
Purple	2		10	1		13	
Green	1		1	1		3	
Blue	1					1	
Brown	1					1	
Blue-green				1		1	
Molded/embossed							
Clear	2		1		1	4	
Green	1					1	
Base							
Molded/embossed							
Clear			1			1	
Purple			1			1	
Brown					1	1	
Milk glass							
White jar liner	1					1	
Tumbler							
Not molded	1					1	
Hollowware							
Not molded	1					1	
Window plate fragments	2					2	
METAL							
Wire nail					6	6	
Wire				1	4	5	
Hinge	1					1	
Watch plate	1					1	
Wire handle	1					1	
Unidentified	—	—	90	12	55	28	185
TOTAL	36	1	101	26	60	41	263

41 DN 77

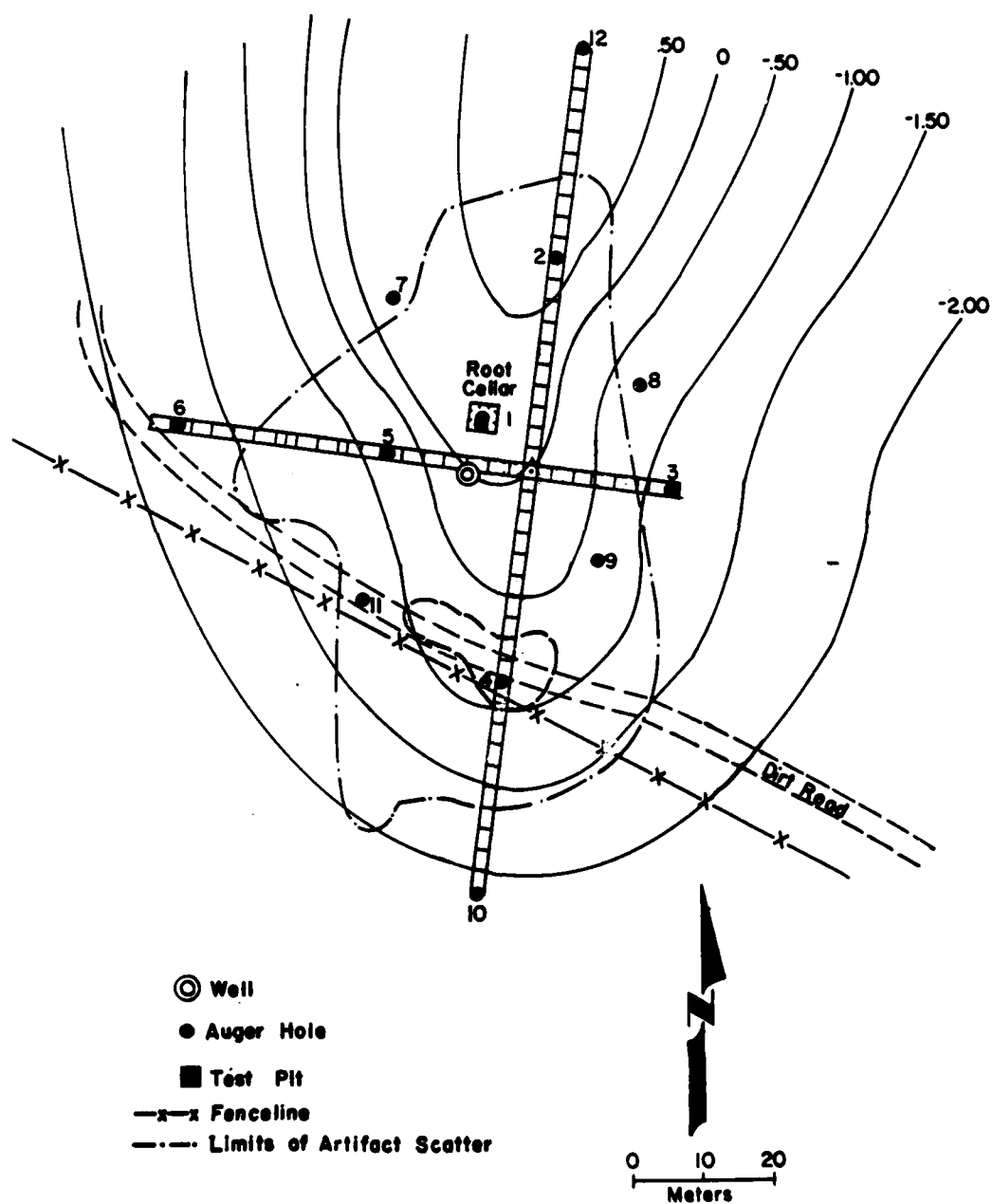


Figure 4-4. Contour map of historic site 41DN77, showing locations of test units.



these features was originally north of the site area. Initial evaluation of the date of occupation for this site, following the survey, placed it as post-1900, but the site fails to appear on the 1917 map of Denton County. Thus, prior to testing, it seemed likely that the site dated to early in the Competition phase (1875-1935).

The size of the site, including the artifact scatter, is about 105 m north-to-south and 64 m east-to-west, being about 0.45 ha in area. The site is situated on a brownish Navo clay loam. The land presently is being used for pasture, and little erosion or disturbance has occurred with the exception of an access road which bisects the southern portion of the site and resulted in some subsurface soil compaction and minor erosion.

Testing Results

Subsurface testing initially consisted of 12 auger holes scattered within and outside the confines of the surface artifact distribution (Figure 4-4). One auger hole also was placed in the root cellar. Following this work, a 1 x 1 m test unit was excavated in the root cellar. Artifacts were recovered from the excavation unit, and from Auger Holes 1, 5, and 11. The stratigraphic results of subsurface testing are presented in Appendix 4.

Auger Hole 1 was excavated to a depth of 132 cm. Artifacts were uncovered at a depth of 20 cm and continued to 120 cm. Artifacts included several fragments of barbed wire, glass, ceramics, one bottle neck, and several square nails. Some fragments of charcoal also were noted at about 40 cm. Auger Hole 5, located 25 m west of the datum, was found to contain several artifacts in the upper 20 cm. These included a metal fragment, a gun cartridge, a fragment of clear glass, and a square nail. Auger Hole 11 was located 30 m southwest of the datum and was excavated to a depth of 60 cm. The top 20 cm was found to contain several artifacts including fragments of glass, ceramics, and six nails.

After completing augering, four collection lines were laid out to the cardinal directions from the site datum. These lines extended 60 m to the south, 54 m to the west, 21 m to the east, and 60 m to the north. One hundred artifacts were collected from an area of 132 m². The largest part of this sample came from the surface immediately southeast of the root cellar, and from the concentration in the southern part of the site.

Test Unit 1 was placed in the small root cellar depression. The north wall of the unit was approximately 10 cm from the edge of the auger hole. As stated earlier, Auger Hole 1 yielded the most artifacts, making the root cellar the most probable location to contain an historic midden. The unit proved productive to a depth of 105 cm, at which point the yellow clay floor of the cellar was encountered. Every level produced a dense collection of historic artifacts including glass, metal fragments, and nails. At the top of Level 8, at approximately 100 cm below ground surface, two small but dense concentrations of artifacts were exposed in the upper 3 cm of the level. One concentration was located in the center of the test pit, and the other was in the southwest corner of the unit. Both concentrations yielded glass and ceramics. Test Unit 1 was terminated after the sterile grey and yellow clay floor of the root cellar was reached.

The western profile of Test Unit 1 (Figure 4-5) suggests that much of the fill of the cellar is the result of the roof collapse. The layer of sandstone and ironstone gravel, located about 30-45 cm below ground surface probably represents the top of the cellar roof, with the dark brown clay layer, the mottled yellow and brown clay, and mottled

41 DN 77-TEST UNIT I

West Wall

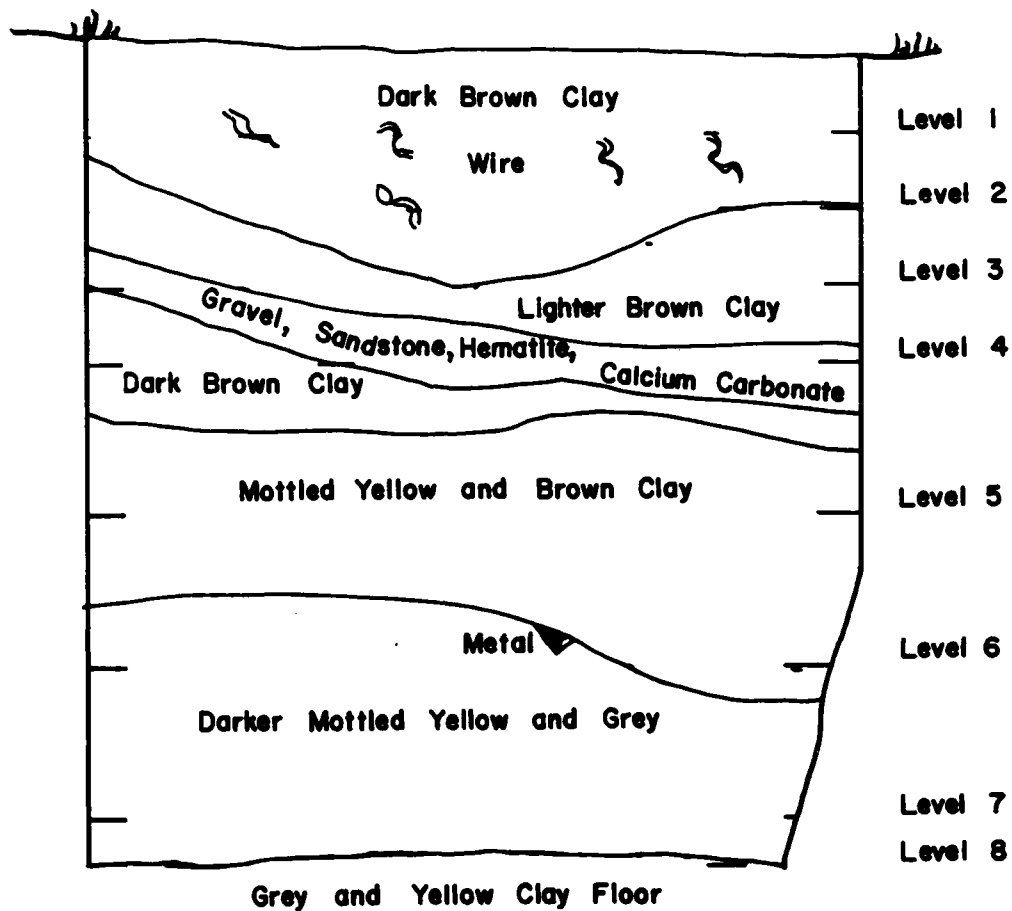


Figure 4-5. Western profile of Test Unit 1, 41DN77.



dark yellow and grey clay being fill from the cellar roof. The last few centimeters above the cellar floor (Level 8) may represent midden material discarded there. The majority of the material in Levels 1, 2, and 3 would have resulted from trash accumulating in the cellar depression. The presence of a 1951 penny in Level 1 confirms this.

Artifacts

The historic assemblage (Table 4-2) recovered from 41DN77 consists of 901 items. Ceramics represent 8% of the assemblage, glass represents 36%, and metal represents 56%. Pieces of wood represent less than 1% of the assemblage.

Summary

Site 41DN77 is a farmstead site which dates to the Competition phase (1875-1935). Features include a well and a deep root cellar. The large surface scatter is partially eroded; however, on the surface and in the cellar, testing revealed the presence of large amounts of primary and secondary trash. A site with good archaeological potential in this part of the project area from this time period, such as 41DN77, should be investigated further. For these reasons, 41DN77 is recommended for nomination to the National Register of Historic Places.

41DN78

Site 41DN78 is an historic farmstead site situated in a field on the T1 terrace at about 181 m elevation. The site is located about 0.5 km west of the Davis Cemetery (41DN117), and 1.6 km west of the Elm Fork of the Trinity River.

Site 41DN78 was recorded as a large surface scatter of historic artifacts, including broken bottle glass (purple, green, clear, and brown) crockery, ceramics, and metal fragments, some of which were stove parts. Some of the glass was burned and/or melted. In addition, some mammal bone fragments were noted.

The artifacts were scattered over a large area, with the densest concentration in the south-central part of the site. Four areas of very dense artifact concentrations were noted in the field, and comprise the core area shown on the site plan (Figure 4-6). It seems most likely that the house associated with the artifact scatter was originally located between Cemetery Road on the north and the densest area of artifact scatter in the south-central site area. The 1917 soil survey map of Denton County shows a farmstead in this same location, along Cemetery Road. Unfortunately, no trace of any structural foundation could be found in this area of the site. The artifact scatter is approximately 170 m north-to-south by 114 m east-to-west and encloses an area of about 1.21 ha.

The associated soil is Burleson clay, a light tan, brown loamy clay. The site appeared to have been moderately to heavily disturbed from plowing of the field in which most of the site was situated.

Based on the survey data, 41DN78 was initially evaluated as post-1900 in date. This agreed with its appearance on the 1917 map and seemed to place it in the latter facet of the Competition phase (1875-1935).

Table 4-2.
Historic artifacts recovered: 41DN77

Type	Surface	Augering	Test Unit 1	Total
CERAMIC				
Earthenware				
Plain decoration	5		11	16
Mold decorated		2	4	6
Painted (blue)			2	2
Slip/Glaze	2	3		5
Bristol/Glaze	7			7
Alkaline Glaze			5	5
Stoneware				
Whiteware--plain dec.	5	1		6
Other colored paste				
Albany/Glaze	2		1	3
Alkaline/Glaze			2	2
Bristol/Glaze	2			2
Bristol/Glaze (maker's mark)	3			3
Bristol/Glaze (lettering underglaze)	1			1
Unglazed			2	2
Porcelain				
Plain decoration	1		1	2
Decalcomania	1		1	2
Porcelain button			1	1
Ceramic tile	1			1
Brick fragments			2	2
GLASS				
Bottle fragments				
Lip/neck				
Tool-finished				
Purple	1			1
Amethyst			1	1
Machine-finished				
Clear	1	1		2
Green	1		2	3
Blue-green	1		3	4
Unidentified				
Clear		1	3	4
Purple	1			1
Green			2	2
Body				
Unmarked				
Clear	14		44	58
Purple	7		5	12
Green	4	1	11	16
Blue		4		4
Brown	4			4
Blue-green	3	1	31	35
Amethyst			3	3
Olive green		1	5	6

Table 4-2. (Cont.)

Type	Surface	Augering	Test Unit 1	Total
Molded/embossed				
Purple		1		1
Green	2		3	5
Brown	2			2
Blue-green			1	1
Base				
Unmarked				
Clear	1			1
Purple	1		8	9
Green	1			1
Brown	1			1
Blue-green	1		3	4
Amethyst			2	2
Molded/embossed				
Clear			1	1
Green	2			2
Blue-green	1			1
Milk glass--white				
Jar liner	1			1
Other	1			1
Tumblers--molded	1			1
Hollowware--not molded	1			1
Window plate	5	8	116	129
Chimney glass			4	4
METAL				
Wire nail		6	19	25
Square nail	1	4	37	42
Staple		1	2	3
Wire			304	304
Barbed wire		10	62	72
Bullet cartridge		1		1
Horseshoe	1			1
Copper penny (1951)			1	1
Buckle			1	1
Cable fastener			1	1
Iron bar			1	1
Stove frag.			1	1
Nut			1	1
Barrel strap			1	1
Unidentified	1	3	47	51
OTHER				
Wood	—	—	3	3
TOTAL	91	49	761	901

Historic Background

When Fred Cole purchased the Bradshaw place (41DN129) in 1935, 41DN78 was part of this property. A man named Hopper lived there from 1915 to 1935 but apparently did not own the land. The house was a two-room box with one of the rooms used as a garage. Cole rebuilt part of the garage and used the rest of the house as storage. The house was destroyed in 1950 by a tornado. The deed research on this property was undertaken, but because of difficulty of determining exact site locations on the original plots, incorrect information was obtained. Further documentary research has not been conducted.

Testing Results

Initial subsurface investigations at 41DN78 consisted of seven auger holes placed in the central and western portions of the site. A lessee placed the eastern portion of this site off-limits (i.e., the area on the east side of the fence which bisects the site from the north to the south), but because the majority of the site falls west of the fence, it was felt that this was not a crucial factor. All the initial subsurface tests were void of artifacts except Auger Hole 3. In Auger Hole 3, one fragment of brown glass was found within the top 20 cm. All holes were terminated at a depth of 40 cm, except Auger Hole 3 went to 60 cm in consideration of the single artifact in the top 20 cm and Auger Hole 7 went to 120 cm in order to collect a full series of soil samples.

Following the completion of this augering operation, three collection lines were laid out to the north, south, and west of the site datum. The northern line was offset by a bearing of 10° west of magnetic north to avoid crossing the fenceline. The northern line was collected for a distance of 69 m, the southern line for a distance of 90 m, and the western line for a distance of 84 m. Artifactual remains were recovered only from within the central portion of the site (core area on Figure 4-6). Beyond the limits of this core area artifact density was low enough to avoid being picked up by the collection lines. Forty-eight artifacts were collected from a core area of 108 m^2 . This is an average density of 0.44 artifacts per m^2 for this core area, or one artifact per 2.25 m^2 .

During the second phase of testing at 41DN78, a $1 \times 1 \text{ m}$ excavation unit (Test Unit 1) was placed 35 m west-southwest of the datum in the general area of Auger Hole 3 (Figure 4-6). The highest density of artifacts within Test Unit 1 was collected from Level 1 and consisted of nails, glass, whiteware ceramics, and crockery. Level 2 produced several pieces of whiteware and a .22 caliber rim fire cartridge at the top, but no artifactual material was recovered below the first 2 to 3 cm of the level. Test Unit 1 was terminated at the base of Level 2 due to the lack of artifacts. The matrix of Level 1 consisted of dark greyish brown (10 YR 4/2) sandy loam and the matrix of Level 2 consisted of dark yellowish brown (10 YR 3/4) clay loam.

Artifacts

Material recovered from 41DN78 was collected by controlled surface collection and excavation exposure from one test unit. Of the 224 artifacts taken from the site, approximately one-third of the ceramics and glass came from the surface. Only 7% of the metal recovered was found on the surface (Table 4-3).

Ceramic material accounts for approximately 25% of the historic material. Earthenware comprises about 25% of the total artifactual inventory, including two maker's marks reading Bloor (British, 1811-1848) and E and C Challinor (British, 1862-

41 DN 78

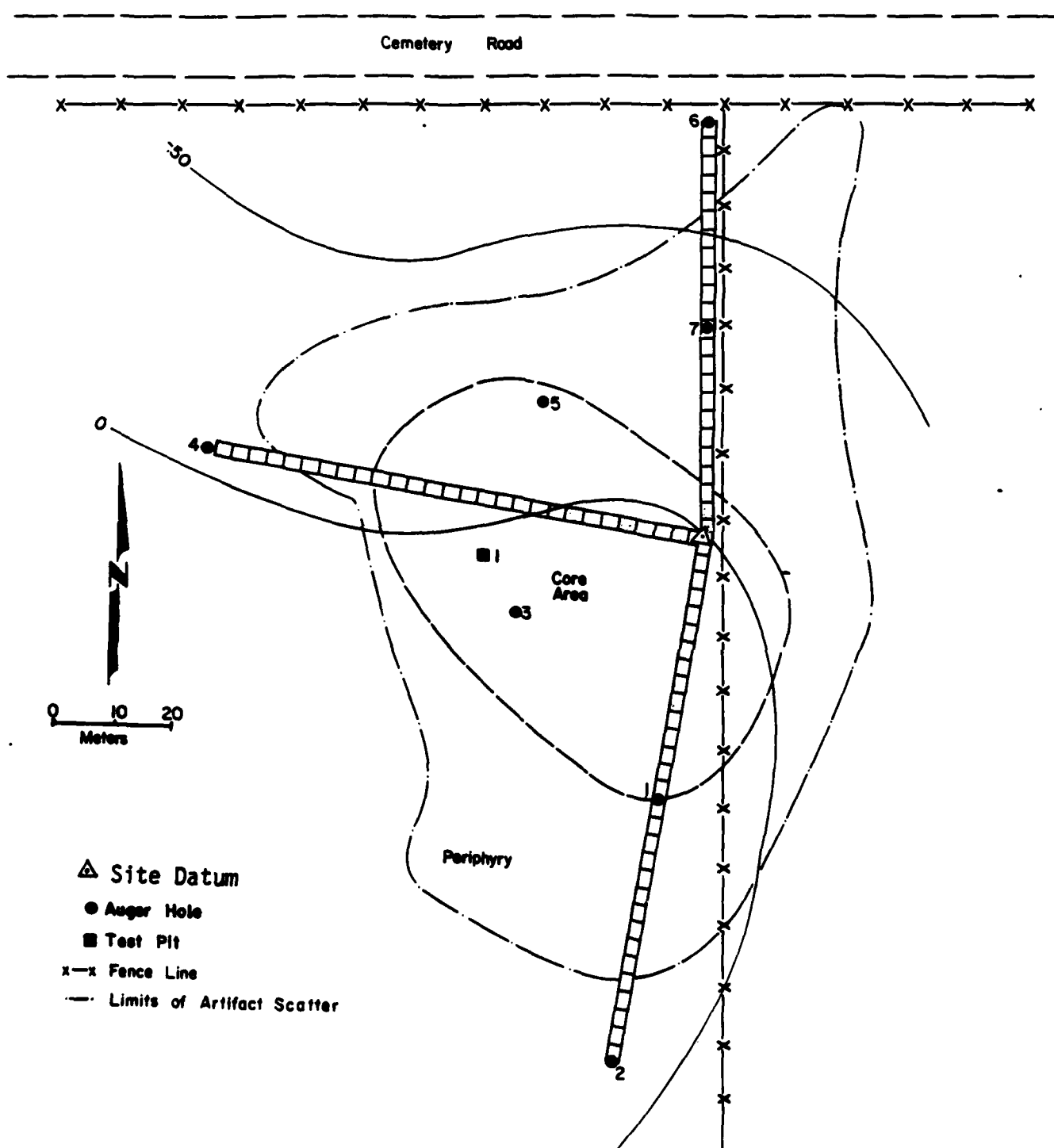


Figure 4-6. Contour map of historic site 41DN78, showing locations of test units.



Table 4-3.
Historic artifacts recovered: 41DN78

Type	Surface	Augering	Test Unit 1	Total
CERAMIC				
Earthenware				
Plain decoration	10		24	34
Plain dec. with maker's mark	2			2
Mold decorated	1			1
Blue shell-feather edge	1			1
Flow blue transfer/mold dec./annular (green)			1	1
Brown transfer print			1	1
Annular (green)/stamped (blue)	1			1
Annular (green)/mold dec./blue glaze			1	1
Painted (green)			1	1
Stoneware				
Albany	1		1	2
Albany/Glaze	2			2
Bristol/Glaze	1		4	5
Bristol(blue slip)/Glaze			1	1
Yellow glaze			1	1
Porcelain				
Plain decoration	3			3
GLASS				
Bottle fragments				
Lip/neck				
Tool-finished-purple	1			1
Machine-finished-purple	1			1
Body				
Unmarked				
Clear	11		15	26
Purple	6		14	20
Green	3		11	14
Brown	1	1	7	9
Blue-green	4		20	24
Dark green			5	5
Molded/embossed				
Clear	1			1
Purple	1			1
Decal				
Blue-green	1			1
Base				
Molded/embossed-blue-green	1		1	2
Pontil mark-blue-green	1			1
Glass rod	1			1
METAL				
Wire nail			7	7
Square nail	2		7	9
Bullet cartridge			1	1
Unidentified	2		41	43
TOTAL	39	1	164	224

1881). Decorated ceramics (exclusive of use of slips and/or glazes) comprise only 12% of the ceramic assemblage. The use of slips and/or glazes on ceramics is represented by 19% of the ceramics. Nearly half of the total material is bottle glass. Wire nails account for 3% of the total and square nails another 4%. The remainder of the assemblage includes individual items of glass and metal. Twenty-one percent of the glass assemblage consists of purple (manganese) glass. A single bullet cartridge was collected (Figure 4-7).

Summary

This site shows evidence of an early occupation and abandonment. There is a suggestion that the site was occupied by a Peters colonist or a settler during the Retreat from the Frontier Period (ca. 1858). Although the site has been heavily disturbed by plowing and no features appear to be intact, it is recommended that it be more intensely surface collected to provide a refinement of the regional chronology.

41DN83

Site 41DN83 is a surface scatter of historic artifacts of unknown temporal placement. The site is located on the east side of a terrace slope 1.50 km west of the Elm Fork of the Trinity River. The artifact scatter is situated to the southeast of the Moderne style house, on an unimproved dirt road at an elevation of about 180 m.

The site consists of a surface scatter of historic household debris including broken bottle glass (purple, brown, and white), earthenware crockery, and unidentifiable metal fragments. The artifactual debris is situated on a dirt road where surface exposure is good. Very few artifacts were observed off the road in areas of dense grass cover. A slight concentration of artifacts exists near the base of the terrace slope where it has evidently been deposited by erosional activity and traffic on the road (Figure 4-8).

The area of the artifact scatter is about 0.38 ha, 150 m north-to-south and 72 m east-to-west. The associated soil is Lewisville clay loam of a tan color. The site has been disturbed to an unknown extent by traffic on the dirt road bisecting the site area. Surface erosion and more recent construction on the site have disturbed the surface artifacts. There was no evidence of in situ features.

The house, built in the 1930s, is a classic example of the Art Moderne style. The soft rounded corners, flat roof, plastic wall finish, wrap-around corner window and string course around the coping of the wall of this structure are diagnostic characteristics of the style. The large square windows are steel framed, with 9 and 16 panes. The only alteration to the original structure has been the replacement of the front doorway with a rounded wooden door and a surround of straw-textured mortar. This alteration, combined with the present tan color of the house, suggests that the present owners wish to interpret the style of the house as that of a pseudo-southwestern pueblo style. The house is banked, having two stories in the rear. This adaptation is an effective design solution to the problem of insufficient square footage while maintaining a sweeping feeling of movement through the use of strong horizontal lines as required by Moderne style.

Two frame board and batten outbuildings were erected close to the house. One, to the north-northeast, is of ancillary function, possibly a chicken coop/corral; the other is a small barn to the southeast.

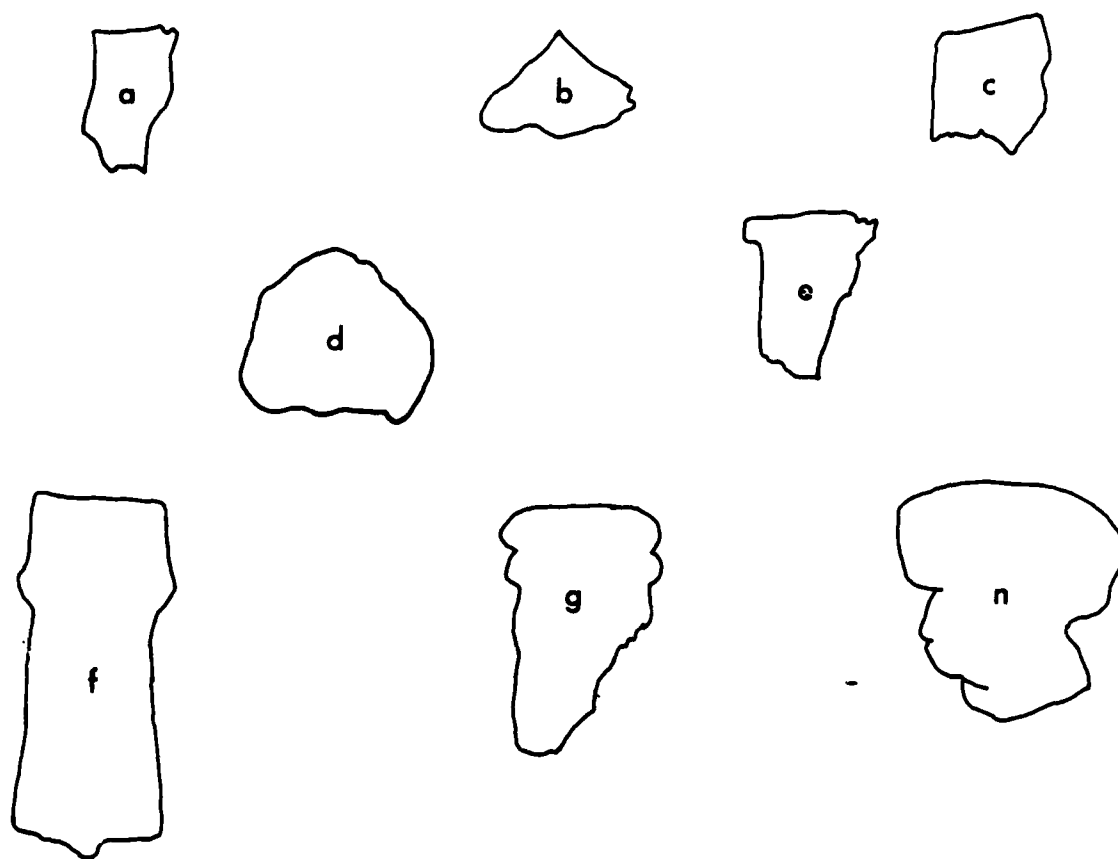
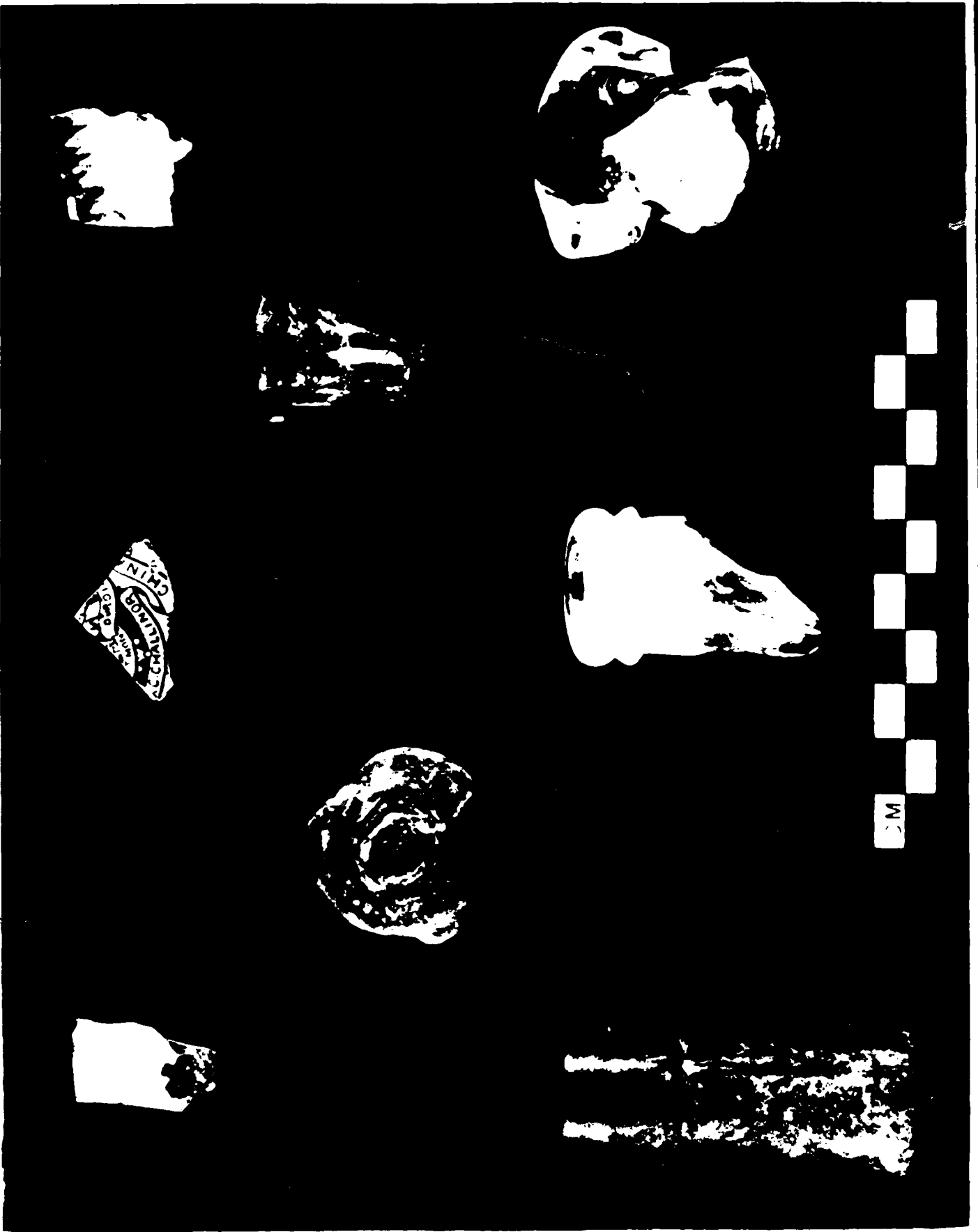
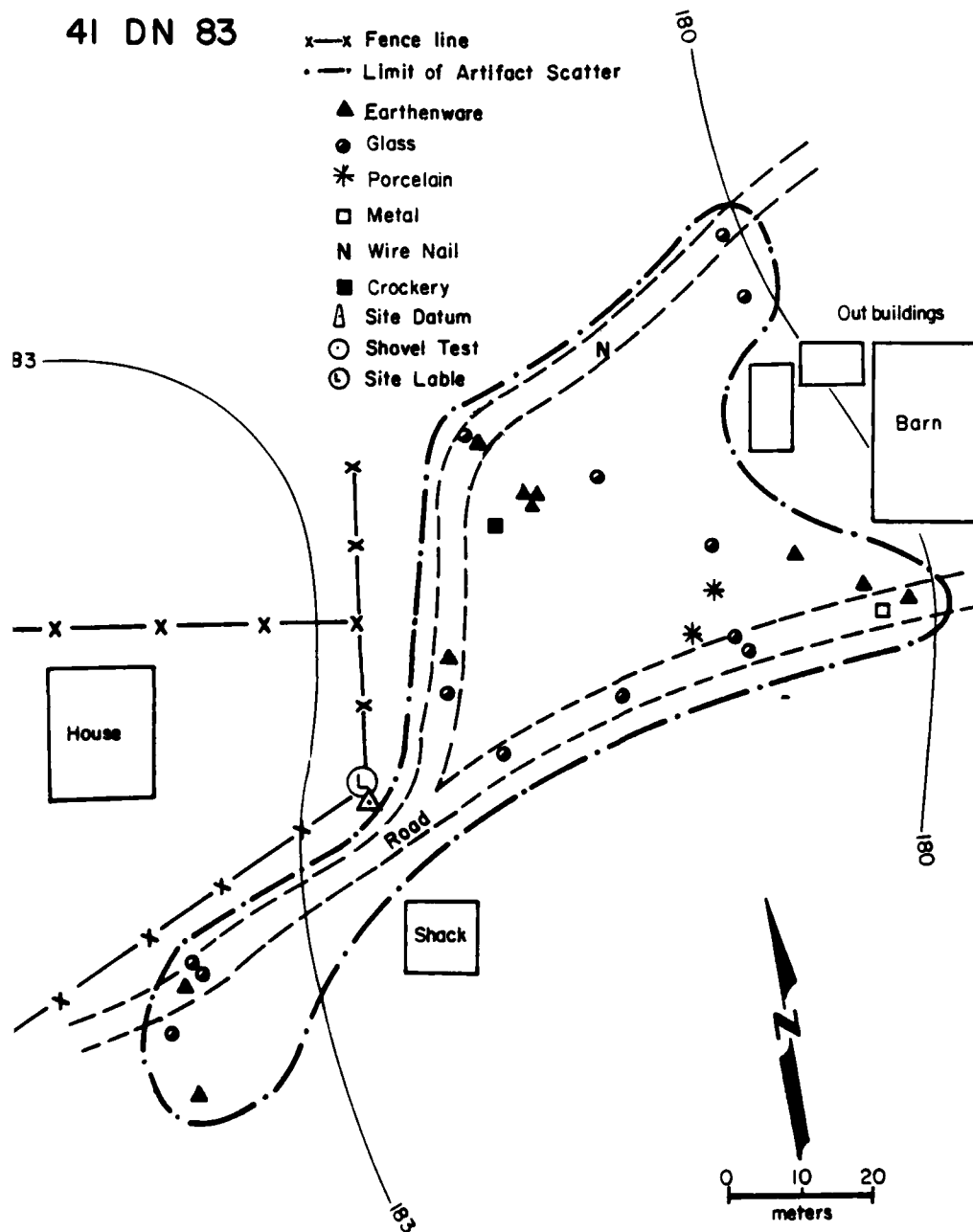


Figure 4-7. Historic artifacts recovered from 41DN78 and 41DN87: 41DN78--(a,b) white paste earthenware with maker's marks; (c) blue shell-feather edge on white paste earthenware; (d) pontil mark; (e) tool-finished lip/neck bottle fragment; 41DN87--(f,g) tool-finished lip/neck bottle fragments, (h) glass dog head.



41 DN 83



Plan of historic site 41DN83.



This site is eligible for the National Register of Historic Places because of architectural purity of style, geographic location in a non-urban isolated setting and a pre-Civil War log house historical archaeological site. The site has been occupied continuously through time and is currently in use as a residence.

Testing Results and Artifacts

Subsurface testing at 41DN83 consisted of seven shovel tests placed at various locations on the site area (Figure 4-8). Shovel Tests 2, 4, 5 and 7 yielded artifacts while 1, 3 and 6 were sterile. All of the shovel tests reached a depth of 30 cm, except for 1 and 3 which were terminated at shallower depths as a consequence of more compacted sediments or the appearance of gravel. The artifacts collected consist of five glass fragments and one wire nail. The glass was comprised of one lip/neck machine-finished brown bottle glass and four bottle body fragments--two clear, one purple, and one blue-green.

Summary

Site 41DN83 is a sparse surface scatter which has been eroded. No buried deposits were found and an earlier occupation could not be identified. For these reasons, no further work is recommended for this site.

41DN86

Site 41DN86 is an historic artifact scatter situated in the floodplain on the bank of the Elm Fork of the Trinity River at an elevation of 169 m. The site is located 1 km south of the confluence of the Elm Fork and Isle du Bois Creek and 25 m west of the Elm Fork of the Trinity River.

The site consists of a small artifact scatter containing bottle glass, ceramics, porcelain, crockery, metal, and a gun cartridge. There are no features present. The size of the site measures 65 m north-to-south and 47 m east-to-west (Figure 4-9). The site is located on clay loam. It is situated in a plowed field, so any surface features that may have existed may have been eradicated by plowing.

Testing Results and Artifacts

Subsurface testing at this site involved the excavation of five auger tests scattered randomly around the site. The auger holes revealed little depth to 41DN86 anywhere, and only one bottle glass fragment and one mason jar fragment were recovered. The matrix of the auger tests consisted of dark brown clay loam. All auger tests were excavated to a depth of 50 cm below surface.

Summary

Site 41DN86 is a light to moderate surface scatter with no depth, no features and heavily disturbed. It was presumably a dump. No further work is recommended for this site.

41DN87

Site 41DN87 is a group of five historic artifact scatters which occur in close proximity. These comprise a historic settlement known as Vaughantown, or Cosner, Texas. At

41 DN 86

HISTORIC ARTIFACTS

- Glass
- Bottle Fragment
- ▲ Earthenware



- Auger Hole
- △ Site Datum
- Ⓛ Site Label
- x—x Fence line
- - - Limits of Artifact Scatter

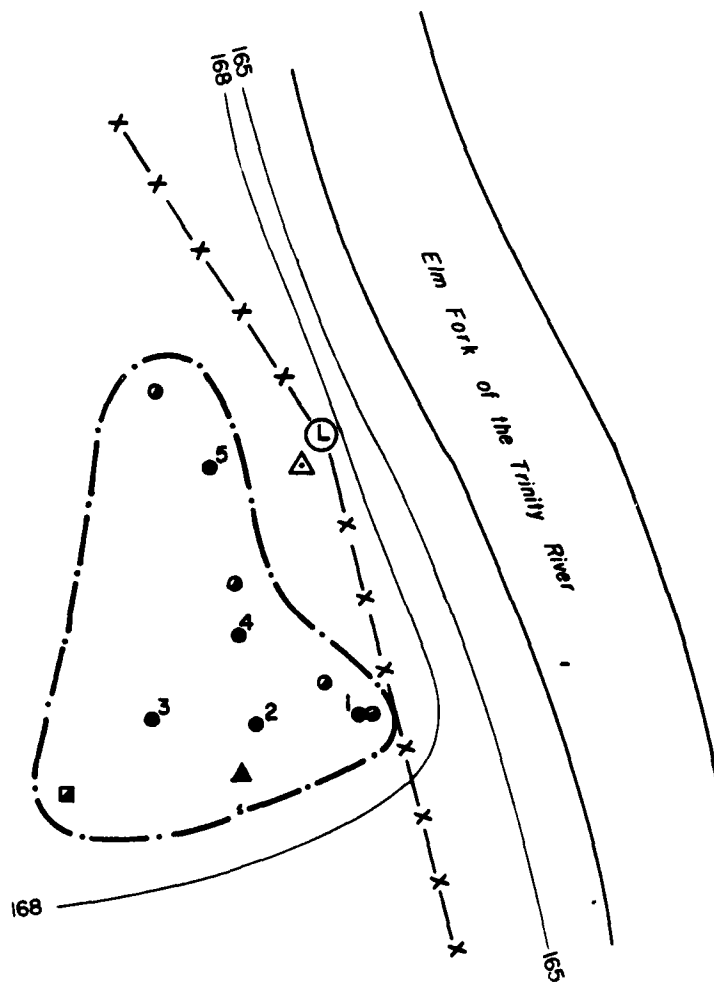


Figure 4-9. Plan of historic site 41DN86.



least one of the individual historic scatter areas was known to contain a prehistoric component of unknown cultural affiliation.

The site is situated on the edge of the T1 terrace and is located on both sides of Cosner Road 1.5 km due west of the Elm Fork of the Trinity River at an elevation of about 180 m. Two of the areas were in a plowed field and the remaining three were located in pasture land.

Based upon survey data, the community was dated as post-1900, possibly post-1880, and it was learned from a local informant that parts of the community lasted until the 1950s. The 1917 Denton County soil map shows four structures or farmsteads on the location. Of these, one seems to correspond to Area A, one to Area C, one to Area D, and the last to the presently standing bungalow on the west side of Cosner Road. It appears that no structures occupying the locations of Areas B and E are shown on the 1917 map.

The Vaughtantown site consists of surface scatters of historic artifacts located in five distinct areas. The artifacts consisted of broken glass, ceramics, crockery, unidentified metal fragments, bricks, wire nails, at least one horseshoe, carriage bolts, a pressing iron, and etched glass. The prehistoric site was associated with Area D, and consisted of a small scatter of quartzite lithic debris in the form of flakes and a bifacial core.

The area of occupation at the Vaughtantown site, including the five individual areas, is about 308 m north to south by about 116 m east to west and comprises about 2.9 ha (Figure 4-10). The soil is a tan-brown, Altoga silty clay. The areas situated in the plowed field were moderately disturbed by plowing with some artifact relocation from their primary context. The areas located on pasture land have been less disturbed although minor sheet erosion has occurred causing some deflation. -

The Vaughtantown site also contains several standing structures: a house, a commercial or residential building, a barn, and two large machine/storage sheds. The house is a classic bungalow, with its square, tapered porch columns with brick piers, and prominent gable caps at the top of irregularly advancing and receding planes. The house is very large for this area and period, indicating a family of some wealth and prominence in the community. The structure to the east of the house may have been used as lodging for ranch hands or as the last location of the community store, which was in operation on this site until the mid-1920s. The barn, although large for this area, is a typical, traditional, vertical-board, multi-purpose structure.

Historic Background

In the early twentieth century (ca. 1925) at the height of its development, Cosner, Texas, consisted of a rural store, blacksmith shop, two residences and several farm outbuildings, and the Bethel Missionary Baptist Church.

Frederick Cosner patented 320 ac known as the Cosner survey in 1857 (Patent, A:501). In the next known transaction, J.A. Cosner bought the east 160 ac of the survey from T. J. and Polley Jones in 1886 for \$800 (W.D., 46:160). In 1897, Cosner sold the property to H. M. Jackson for \$3,500, but gained it back the same year (presumably for non-payment) (W.D., 60:497). Cosner sold all but the northwest 40 ac in 1901 to I. P. Rosser for \$3,300 (W.D., 77:285). In 1904, the Rossers sold it to G. W. Vaughan for \$7,967 (W.D., 94:115). According to family history, G. W. Vaughan had come from Chattanooga, Tennessee, after the Civil War with his wife and son in a covered wagon. He settled near Whitewright, Texas (Grayson county), 9 mi east of Sherman, Texas.

41 DN 87

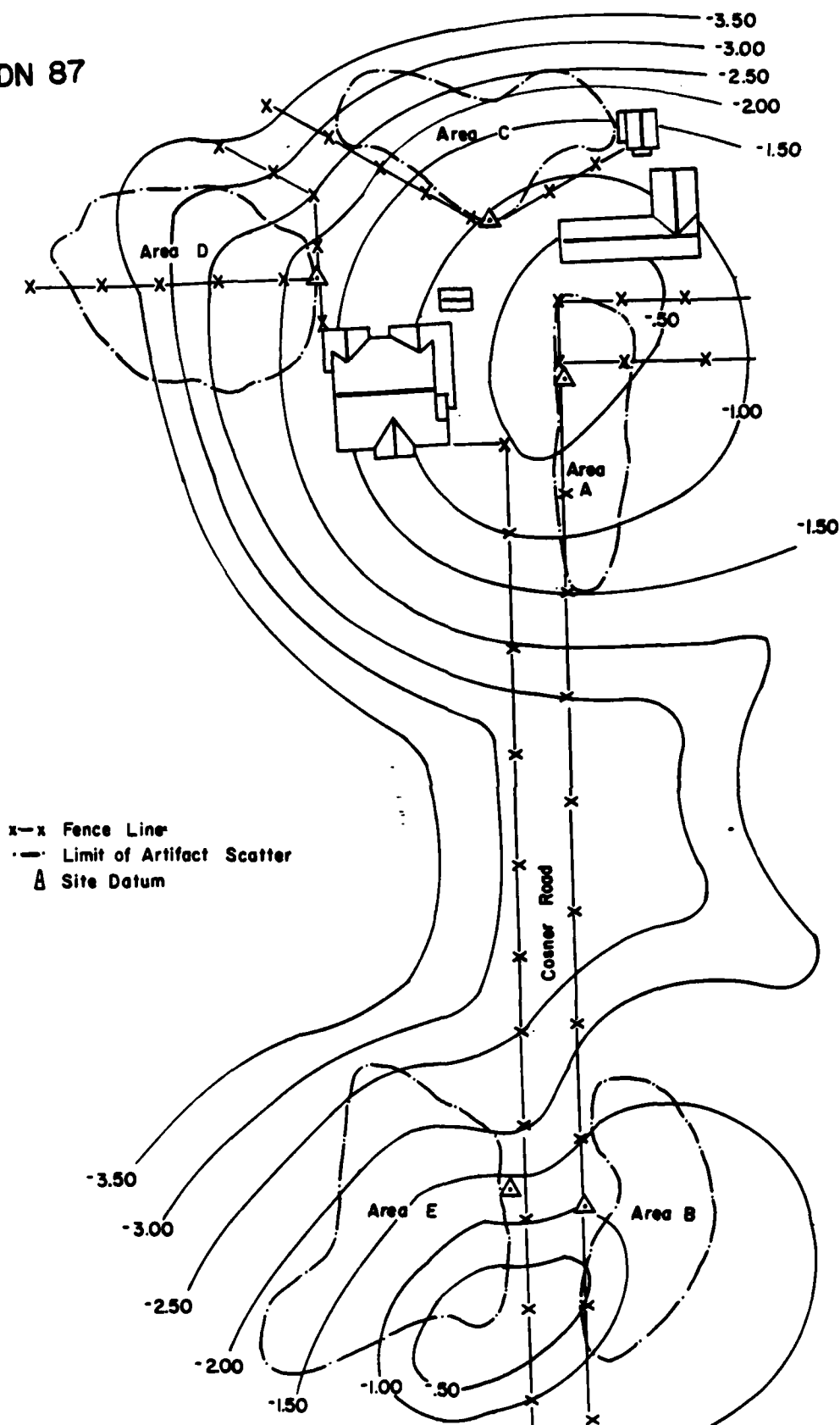


Figure 4-10. Contour map of historic community 41DN87, showing areas tested.



From there they moved to Denton County, near Bolivar (east of Sanger about 6.5 mi), and then moved to Cosner, later known as Vaughantown.

The Cosner store was established prior to 1900 by J. A. Cosner. It was a multi-purpose establishment, being at once the post office, hardware, grocery, and dry goods vendor for the Cosner community. Cosner was nearly equidistant from Pilot Point and Sanger but not close enough to either for frequent shopping. According to G.W. Vaughan (1-20-81), his deceased grandfather (also G.W. Vaughan) bought the store in 1904, but he could neither read nor write, so he offered half interest to his son Aubrey if he would move with him to the new location and run the store. Aubrey Vaughan was married and had two children, but his father guaranteed he would not lose money the first year, so he went.

The store carried a general line of groceries, including coffee, beans, bacon, corn meal, flour, and sugar in small quantities or in bulk; salted meat was available, and was kept in a screened cage to keep the flies off. Store furnishings included a coffee mill. Food came to Sanger from Gainesville on the train, and two boys would go into town twice a week to pick it up at the depot and bring it home by wagon.

At the time of his death in 1920, G. W. Vaughan owned 551 ac of farmland, one horse and buggy, two cows and calves, farm implements valued at \$245, and household goods valued at \$200. His cash on hand totalled \$1,604. The stock, general merchandise and fixtures of Vaughan's store were estimated as worth \$2,725. That summer he had 1/4 interest in four unsold bales of cotton (worth \$63), 1/3 interest in 17 ac of cane (worth \$75), 1/4 interest in one growing cotton crop (\$250), and 1/4 interest in another growing cotton crop (\$1,000) (inventory and appraisal of the estate, probate). The running of the Cosner store, which he had previously shared with his son, was left entirely to Aubrey Vaughan.

The store was "made of sheet-iron" (Edward and Lydia Morrow, interview, 1-18-81) and was roughly 30 by 60 ft, with a storage shed addition approximately 20 by 11 ft. The Vaughantown store and blacksmith shop served as the social center for the people of the rural community. Farmers would come in on rainy days or when they needed work done right away, and would pitch horseshoes and silver dollars, or play dominoes or "42," and the Civil War veterans would sit on the porch and tell stories about the war. On Saturdays, 30 or 40 people would come in to shop and visit, and 25 or 30 would come in on rainy days. The store was open 6 days a week, and Aubrey would open it if someone came by closing time. Like most rural stores, they operated on credit from spring till harvest, but it was a matter of honor to pay one's debts.

At least three blacksmiths are known to have operated the shop at Cosner: a man named Campbell, Herbert Dobbs, and J. O. Strickland. The shop was described as about 14 ft by 30 ft and busy enough to sometimes need two workers. The structure had double doors on the west, two doors on the east, and window openings on the north and south with drop shutters that were closed at night. When people in the neighborhood were ill, someone would come to the Vaughans to call the doctor (one lived in Pilot Point and one in Sanger), and then go by horse to meet him at the Big Elm Creek crossing. When someone was sick at harvest time, the neighbors picked his crop and provided dinner for the workers and their families. Twelve or fifteen bales of cotton could be picked in a day with the increased work force.

Upon G.W. Vaughan's death in 1920, his sons were nearly grown and could help him farm. About 1920, Aubrey Vaughan was farming with ten mules and two horses. The barns on the site were sturdy wooden structures. They were used to store grain and

hay, and stable the horses, mules and cows. The cattle on the farm were all killed in a storm when lightning hit the barn. Perch and catfish caught in the creek supplemented the Vaughan's diet. Aubrey Vaughan followed the Morrow's lead and planted paper shell pecans in his orchard.

As automobiles became common in the mid-1920s, people started going to Pilot Point or Sanger to shop, and the Vaughan's business steadily declined. Around 1930, Vaughan sold the contents of the store to a man in Sanger and kept the building to use as a barn. It later was struck by lightning and burned, as did one hay barn and one horse barn.

A large modern house was built in the mid-1920s when Aubrey Vaughan's family outgrew the house that had come with the property. Their old house was a typical board-and-batten four-room structure, one board thick and papered with newspaper. When the wind was strong it would split the newspaper; as the wind varied in intensity through the night "the tune would change" (G. W. Vaughan, interview, 1-20-81). One room served as kitchen/dining room, another as living room/bedroom and the other two as additional bedrooms.

At that time the dwelling house was at the north end of the Vaughtantown complex on the west side of the road, along with one or two chicken coops. There were barns on either side of the road. The store was also on the west side of the road, with the church and the blacksmith shop on the east. The post office boxes were stacked by the blacksmith shop.

The new house was built by carpenters Barlow Ebley, Riley Hicks, and Dobber Galbraith. These craftsmen worked out of Sanger and built many houses in the area.

Unusually detailed information was obtained about the process by which the house was built (G.W. Vaughan, interview, 1-20-81). There were two lumberyards in Sanger, one of which had a book with pictures and simple building plans. Initially, Vaughan was told that the plans were available regardless of purchase, but when materials from the other lumberyard proved to be \$500 cheaper for the house he picked, the proffered use of the plans was withdrawn. Mr. Galbraith stated that he had just built a house by that plan and thought he could replicate it without trouble. So he was made head carpenter at \$5.00 per day, the other carpenters making \$4.00 per day. In addition to the three carpenters, the Vaughan boys and their neighbors helped build the house. The neighbors were each paid \$1 a day. To obtain lumber and other materials, they first tore down four older houses and three barns. Windows and other necessary items were purchased at the lumberyard, and hauled to the site in the Vaughan's Model T pickup. The brick used in the house was manufactured in Denton by the Acme Brick Company. The house had nine rooms and a bath and was the most progressive house in the neighborhood.

Bethel Missionary Baptist Church

In 1908, G. W. Vaughan donated 1.5 ac and \$100 for building materials to the Bethel Missionary Baptist Church, on the condition that if the congregation disbanded or attempted to sell the property to another denomination, the land would revert to Vaughan or his heirs (W.D., 115:224). The church was built about 0.14 km northeast of the store. Lee Branch served as pastor of the church for 13 years. He lived somewhere beyond Gainesville, and would drive down on Saturday, preach Sunday, and drive back on Monday.

As in many rural American neighborhoods, the Vaughtantown church provided a social outlet as well as a source of spiritual reinforcement. If someone was sick and needed

help, it was announced in church. Church members took turns sitting up with the dying, and if a family had a fire and lost their belongings, the congregation gave a gift shower and helped rebuild the house. Sunday services were opportunities to visit, have dinner with friends, picnic, and generally catch up on the neighborhood news. Between 35 and 50 people from the neighborhood regularly attended. The Vaughntown church was a frame structure that held about 25 pews. It featured a bell over the foyer in a square bell tower.

Special meetings were a welcome break from daily routines. The special event most often mentioned is singing conventions, which were held at least once a year in the spring or summer. A Texas tradition, "singings" were sessions where young people could learn to read music, and everyone could get together for an extended period of time. According to G. W. Vaughan, shorter singings also were held frequently in the community on Saturday and Sundays and sometimes during the week. Although there was no cemetery associated with this church, an annual homecoming picnic was held. Families would bring food, and dinner was eaten outside.

Another special event that occurred regularly was "fifth Sunday" meetings. In months where there were five Sundays instead of the usual four, the fifth was devoted to an all-day singing and dinner on the church grounds. People from neighboring churches attended as well, and special gospel entertainers were sometimes brought in for the day and the meeting would last until about four o'clock in the afternoon.

In the early 1940s, church services were held at the church on Sunday morning and again in the evening. Children and adults attended Sunday School and then church. During this period, Elsie Morrow was the church pianist. In 1945, the church was disbanded, but local families still gathered at the church for Sunday evening services for some years. In 1952 (W.D., 384:411), because many farmers had moved to town, the church was sold to the Gribble Springs congregation and moved southwest to their community.

Testing Results

The evaluation of 41DN87 involved the use of deep auger testing, shallow shovel testing, and controlled surface collecting. All five areas were examined individually and are reported upon here in the same manner. The degree of subsurface examination varied from area to area and was partially dependent upon the nature of the artifactual material and its density.

Area A is located on the east side of Cosner Road, in the central part of the site (Figure 4-10). The subsurface investigations at Area A consisted of one auger hole to a depth of 80 cm below ground surface, and three shallow shovel tests. The results of this subsurface testing are presented in Appendix 4. The auger test contained artifacts to a depth of 40 cm below the surface, and one of the three shovel tests also contained artifactual material down to 40 cm. The deeper deposits of Area A are located at the southern or downslope end of the area (Figure 4-11), and may be the result of erosion and secondary deposition of material downslope from the structure location at the northern end of the area.

In addition to the augering and shovel testing at Area A, two collection lines were laid out which bisected Area A on a north-south and east-west axis. The north-south line was collected for a distance of 90 m, and the east-west line was collected for a distance of 33 m. The majority of artifactual material on the surface was concentrated in the northern 33 m and the westernmost 9 m (core area in Figure 4-11). The remainder of Area A has been labeled the periphery. A test pit was recommended for

41 DN 87

Areas A, C, & D

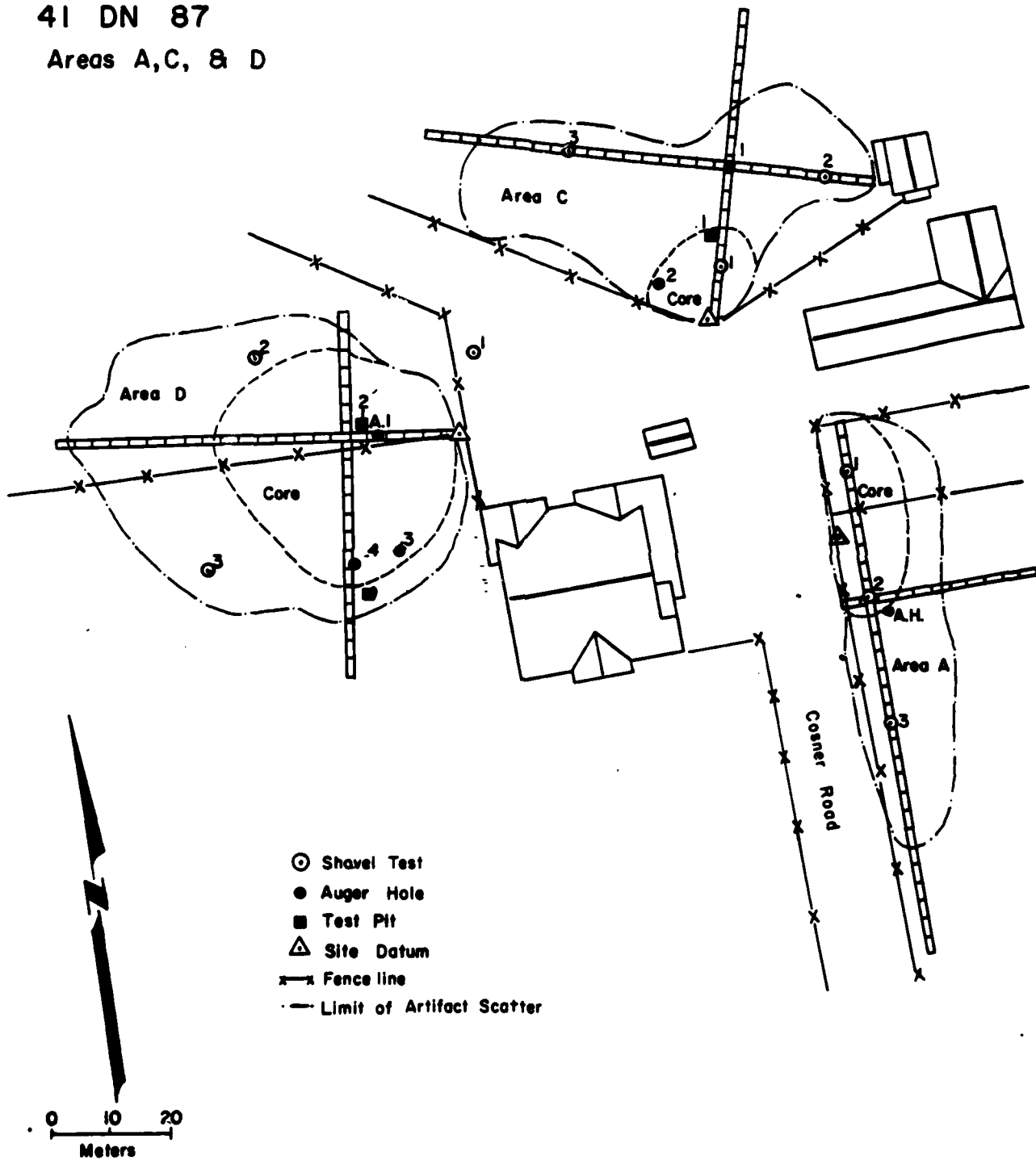


Figure 4-11. Plan map of Test Areas A, C, and D, 41DN87, showing locations of test units.



Area A; however, it was left untested at the request of the landowner because the site was in cotton at the time.

Area B is situated due south of Area A on the southeastern margin of 41DN87, on the east side of Cosner Road (Figure 4-10). Subsurface testing of Area B included one deep auger test to 80 cm below surface, and three shallow shovel tests to about 40 cm. Results of this testing are given in Appendix 4. In general, there is less depth to the artifactual material in Area B than that in Area A. The auger test revealed no buried material whatsoever, and the shovel tests contained material only in the upper 20 cm. No part of Area B appears to be uniform in depth.

Surface collection of Area B involved a 1 m wide north-south transect along the western edge and a 1 m wide east-west transect which bisected the area (Figure 4-12). The north-south collection line was 75 m long, and the east-west line was 33 m long. Within the limits of the artifact scatter, no concentrations were noted and a total of 43 artifacts were collected from an area of 71 m². This yields an average density of 0.59 artifacts per m², or one artifact per 1.67 m². During Phase 2, Area B was also in cotton and was not tested further at the request of the landowner.

Area C is located on the northern margin of 41DN87, situated to the northwest of Area A, on the east side of Cosner Road. Subsurface investigations of Area C included two deep auger tests, three shallow shovel tests (Appendix 4), and a 1 x 1 m test pit. Both auger tests were located in the central portion of the site and revealed historic material down to a depth of 60 cm below ground surface. In addition, Auger Test 1 contained a prehistoric projectile point base of the Edgewood type in the top 20 cm of the test hole. Because historic material was found below this artifact, it seems almost certain that it is in a derived context, and may belong with the small prehistoric surface manifestation in Area D. Of the three shovel tests, two were sterile and the third, Shovel Test 1, contained material down to 40 cm. Based on these results, it would seem that the central portion of the area contains the greatest depth.

Area C was collected by two 1 m wide transects, one running north-south and the other east-west (Figure 4-11). Very little material was collected from the surface of this area and the greatest concentration of surface material, the core area, was situated in the south-central area, extending 15 m north from the site datum. An area of 15 m² was collected in this part of Area C, and was found to contain 32 artifacts. This is a surface density of 2.13 artifacts per m², or 0.46 m² per individual artifact. Beyond this core area, only five more artifacts were picked up.

Test Unit 1 was located in the northern portion of the core area of Area C (Figure 4-11). Historic artifacts collected from Level 1, a 10 cm level, include crockery, bottle glass, wire and cut nails, asphalt shingle fragments, and miscellaneous metal fragments. In addition to these historic artifacts, a chert flake was recovered 4 cm below surface. In Level 2, also a 10 cm level, only one artifact was recovered, an historic piece of pottery. Level 3, which went to 30 cm below surface, contained no cultural material. Shovel Test 1 contained material down to 40 cm; however, the results from Test Unit 1 indicate that the vast majority of material is in the uppermost 10 cm. The matrix of Levels 1-3 consisted of dark, yellowish brown (10 YR 4/4) silty clay.

Area D is situated west of Area A and southwest of Area C (Figure 4-10). It is on the west side of Cosner Road, partially behind the modern bungalow. Because this area was known to contain a prehistoric component, four auger tests were drilled in this area, in addition to four shovel tests and a surface collection.

The results of the subsurface testing of Area D are presented in Appendix 4. All of the auger tests contained artifactual material; two contained material to 60 cm below ground surface. Auger Hole 1 was placed in an extremely dense area of surface artifacts—possibly a dump—and contained glass, china, and bits of metal. Auger Hole 3, placed behind the standing bungalow, contained a dense charcoal concentration in the upper 20 cm and numerous artifacts. None of the auger holes revealed any prehistoric material.

Of the four shovel tests, two contained no artifacts, and Shovel Test 2 contained bits of glass and metal down to 40 cm. Shovel Test 1 contained no artifacts, but did reveal the presence of a large limestone rock at about 4 cm below ground surface, the only test to reveal such in all the subsurface work at 41DN87. In view of the scarcity of such rocks, and its location between the artifact scatter of Area D and Cosner Road, it seems likely that it is the remains of a structure foundation. The fact that the 1917 soil map of Denton County shows a structure in this location would tend to reinforce this view.

A surface collection of Area D was made in two 1 m wide transects across the site. One of these bisects the site on the east-west axis, and a north-south transect runs through the easternmost third of the site. The east-west transect was 66 m long, and the north-south transect was 60 m long. The densest artifact concentration was in the core area on Figure 4-11.

Test Unit 2 was located adjacent to Auger Hole 1 on a slight rise (Figure 4-11). There are numerous surface artifacts in this area. Augering in this area revealed artifacts to a depth of 60 cm, and this area represented a possible dump. Test Unit 2 was excavated in 10 cm levels. Level 1 of Test Unit 2 contained numerous artifacts. Level 2 also contained artifacts but not nearly as many as Level 1. Level 3 contained no artifacts. The matrix of Levels 1, 2 and 3 consisted of silty clay. Although Auger Hole 1 revealed artifacts at 40-60 cm, the vast majority from Test Unit 2 are in the uppermost 10 cm. It is possible that those thought to have come from 40-60 cm in Auger Hole 1 actually were displaced from above by the action of the auger.

Test Unit 3 was located in the core of Area D in the area where a concentration of prehistoric artifacts had been observed during the initial survey. Also, a concentration of historic bricks was observed adjacent to this area. Test Unit 3 was excavated in 10 cm levels. No prehistoric artifacts were recovered from any of the three levels. The greatest density of historic artifacts was observed in Level 1. One artifact was recovered from the uppermost portions of Level 3. The remainder of Level 3 was sterile. The matrix of Level 1 consisted of light olive brown (2.5 YR 5/4) clay loam. The matrix of Levels 2 and 3 consisted of yellowish brown (10 YR 5/4) sandy clay.

Area E is situated west of Cosner Road, almost due south of Area D and west of Area B (Figure 4-10). Subsurface testing of Area E consisted of one deep auger hole and 3 shallow shovel tests. These tests seem to indicate little depth to this area of 41DN87. The auger hole, placed in the southern edge of the area, contained only a single nail, which probably had been displaced downward by the action of the auger. Shovel Test 1 contained glass, plastic, and a nail within the top 20 cm. Shovel Tests 2 and 3 were totally sterile.

The area was collected in two 1 m wide transects running northeast to southwest and northwest to southeast through what appeared to be the densest part of the area (Figure 4-12). The northwest-to-southeast transect was 60 m long, and the northeast-to-southwest line was 90 m long. The densest portion of Area E is shown on Figure 4-12

41 DN 87
Area B & Area E

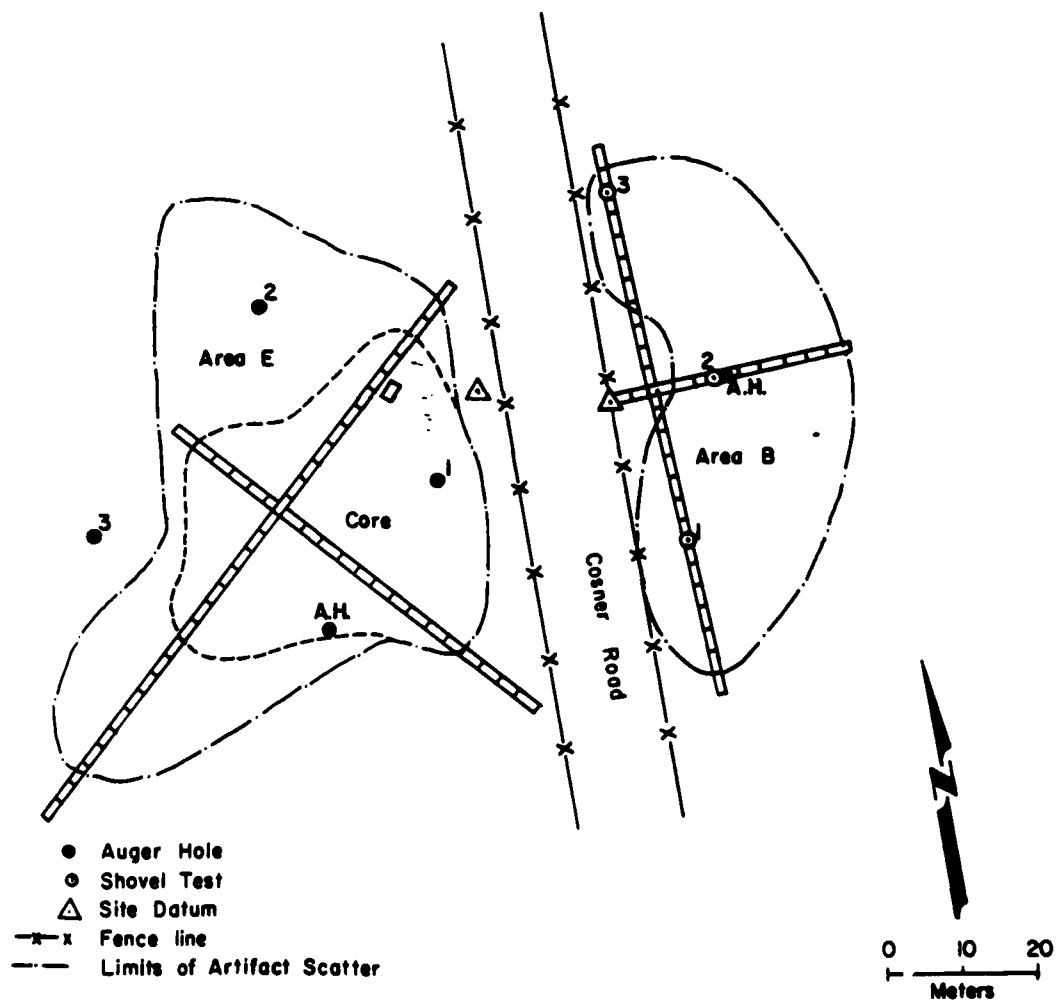


Figure 4-12. Plan map of Test Areas B and E, 41DN87, showing locations of test units.



as the core area. Area E could not be tested further during phase 2 at the request of the landowner because the site was in cotton.

Artifacts

A small amount of prehistoric material was recovered from 41DN87. A broken point, preliminarily typed as an Edgewood, and a flake from Test Unit 1 were recovered from Area C. The surface collection made at Area D was found to contain several fragments of non-diagnostic lithic shatter, a bifacial core, and a few cortex flakes. Apparently, this northern portion of the site contains an ephemeral Late Archaic component.

The historic artifact assemblage recovered from 41DN87 consists of 3,387 items. Of this material, 75% was recovered from a controlled surface collection. Almost 73% of the recovered material is glass. Of particular interest is a clear glass dog head figurine. The artifact inventory is presented in Table 4-4. Figure 4-7 presents some of the artifacts recovered from 41DN87.

The determination of this site as a habitation site is derived from the analysis of large numbers of undecorated tableware, slipped stoneware, milk glass tableware, painted soda bottle glass, and personal household items.

The temporal range of mid-1800s to recent times is based on the presence of black transfer print, blue glaze sherds, turquoise transfer print, milk glass jar liners, tool finished lip/neck bottle/jar glass, and one piece of slate board. Decorated ceramics include white paste earthenware with transfer prints, annular bands, mold decoration, gild, decalcomania, and earthenware stoneware treated with slips and slip/glazes.

The era of early 1900s is exemplified by square nails and stoneware decorated with Albany slip. The personal items such as plastic toys, rubber wheels, a belt buckle, and milk glass cosmetic container indicate more recent occupation. In addition, modern glass is represented by threaded lip/neck bottle/jar fragments, colored bottle glass, and wire nails. Coal fragments and burned glass also were present at this site.

Summary

Site 41DN87 is a cluster of five sparse-to-dense surface scatters. It is the location of the historic settlement known as Vaughantown or Cosner, and has had a long, intensive occupation dating from mid-1800s to recent times. Three of the scatters are in plowed fields and two are adjacent to modern buildings. The depth of deposit varies from 10 to 15 cm. No features were observed. It is recommended that 41DN87 be comprehensively surface collected in order to gain a thorough understanding of the regional chronology and settlement history.

41DN88

Site 41DN88 was recorded as an apparent historic dump site located on the edge and west face of the T2 terrace from an elevation of about 192 m to 186 m (Figure 4-13).

The site was observed to be a scatter of historic household utility items, including broken bottle glass (purple, green, brown, and clear), ceramics, a copper broach, numerous unidentifiable metal fragments, and a complete bottle. Most of the artifacts appeared to be evenly scattered on the surface, although a small concentration was noted in the backdirt of a rodent burrow, thereby indicating a subsurface cultural deposit on top of the ridge. The artifacts noted on the site spanned a long time period

Table 4-4.
Historic artifacts recovered: 41DN87

Type	Surface	Augering	Test Units			Total
			1	2	3	
CERAMIC						
Earthenware						
Plain decoration	291	4	3	76	13	387
Plain decoration with maker's mark				2		2
Mold decorated	32					32
Green shell-feather-edge decoration	1					1
Flow blue transfer print	3	1		3		7
Black transfer print	1					1
Turquoise transfer print	1					1
Mold decoration with blue transfer print	1					1
Annular band	2					2
Gilded rim	3					3
Decalcomania	12				1	13
Molded decoration/ decalcomania	2				1	3
Painted	14					14
Slip	1					1
Glaze (alkaline, colored or lead)	12			4	1	17
Slip/Glaze	3					3
Stoneware						
Albany	3	1				4
Albany/Glaze	9		2			11
Albany/Glaze interior with Bristol/Glaze exterior	1	1				2
Alkaline/Glaze exterior with Albany/Glaze interior			2			2
Annular banded	1					1
Bristol/Glaze	19					19
Bristol/Glaze with maker's mark	1					1
Bristol/Glaze-mold dec.	4					4
Unslipped/unglazed	1					1
Porcelain						
Plain decoration	10	1				11
Mold decoration	2					2
Brick	2	1		3	1	7
GLASS						
Bottle fragments						
Lip/neck						
Tool-finished						
Clear	1					1
Purple	5					5
Machine-finished						
Clear	19					19
Purple	6					6
Brown	1					1
Blue-green	3					3
Unidentified						
Clear			7	1		8
Purple	3		1			4
Blue			1			1
Brown	1					1
Blue-green	1					1

Table 4-4. (Cont.)

Type	Surface	Augering	Test Units			Total
			1	2	3	
Body						
Unmarked						
Clear	1015	34	4	313	10	1376
Purple	96	5	2	29		132
Green	152	4		8	4	168
Blue	16			2		18
Brown	57	2	1	30	1	91
Blue-green	97	3	1	3		104
Olive green	1					1
Yellow	3					3
Pink	2					2
Molded/embossed						
Clear	129	2		14		145
Purple	5			1		6
Green	12	1		3		16
Blue	1					1
Brown	23					23
Blue-green	5			1		6
Yellow	3					3
Pink				2		2
Painted/decal						
Clear	22					22
Green	1					1
Brown	1					1
Base						
Unmarked						
Clear	3	2				5
Purple	1			4		5
Green	1					1
Mold marked/embossed						
Clear	4	10	1	7		22
Purple	9					9
Green	18					18
Blue	1					1
Brown	5				1	6
Blue-green	3					3
Milk glass						
White						
Jar liner	35		8	2		45
Other	38	1	2	2		43
Blue-other	13		2			15
Green-other	5					5
Tumbler-press molded	2			2		4
Hollowware						
Unmolded	5					5
Press molded	8					8
Painted	3					3
Handles-press molded	1			2		3
Window plate glass			4	30		34
Melted glass	2	1				3
Marble	1					1
Clear doghead figurine	1					1
Glass button	1					1
Glass rod	1					1
Lid top-purple-octagonal			1			1
Glass tile				1		1

Table 4-4. (Cont.)

Type	Surface Augering	Test Units			Total	
		1	2	3		
METAL						
Wire nail	51	9	5		65	
Square nail		29	2		31	
Staple	1				1	
Wire	2	10	1		13	
Hinge	1				1	
Lid	2	1			3	
Bullet cartridge	3	1			4	
Lock frag. (copper/brass)		1			1	
Button (copper/brass)	1	2			3	
Barbed wire	12	1			13	
Key can opener	1	1			2	
Iron washer				1	1	
Token (copper/brass)			1		1	
Iron bolt	2	1			3	
Iron nut	2				2	
Copper tubing	1				1	
Belt buckle	2				2	
Snap	1				1	
Wrench fitting	1				1	
Garden hose connector	1				1	
Eraser casing	1				1	
Silver-plated spoon	1				1	
Metal shoe	1				1	
Unidentified	128	88	5		221	
OTHER						
Plastic	30				30	
Rubber	7	2			9	
Wood	1				1	
Leather	1				1	
Coal	1				1	
Concrete fragments	2				2	
Shell button	1				1	
TOTAL	2532	75	187	560	33	3387

and included several broken bottle tops which probably dated to around 1880, at least one complete panel bottle which dated post-1900, and numerous examples of recent artifacts, such as aluminum beer cans. This would seem to indicate that the area has been used as a dump site from around the turn of the century until the present.

The observed surface scatter covered an area of about 0.20 ha and measured about 55 m north-to-south by 57 m east-to-west. The soil is a brown, Justin, fine sandy loam, and the site was relatively undisturbed with the land currently being used for pasture.

Testing Results and Artifacts

Subsurface testing at 41DN88 consisted of a series of seven shovel tests placed on top of the terrace and in the center of the scatter downslope (Figure 4-13). Only four tests revealed any subsurface material. Three of these, Shovel Tests 5, 6, and 7, were located on top of the terrace and produced five fragments of bottle glass and one white paste earthenware sherd. Shovel Test 3, located downslope, produced one piece of glass. The five bottle glass fragments consisted of four unmarked body fragments (two clear and two blue-green) and one blue-green molded base fragment. All of these artifacts were recovered from close to the surface. In addition, three purple, lip/neck

41 DN 88

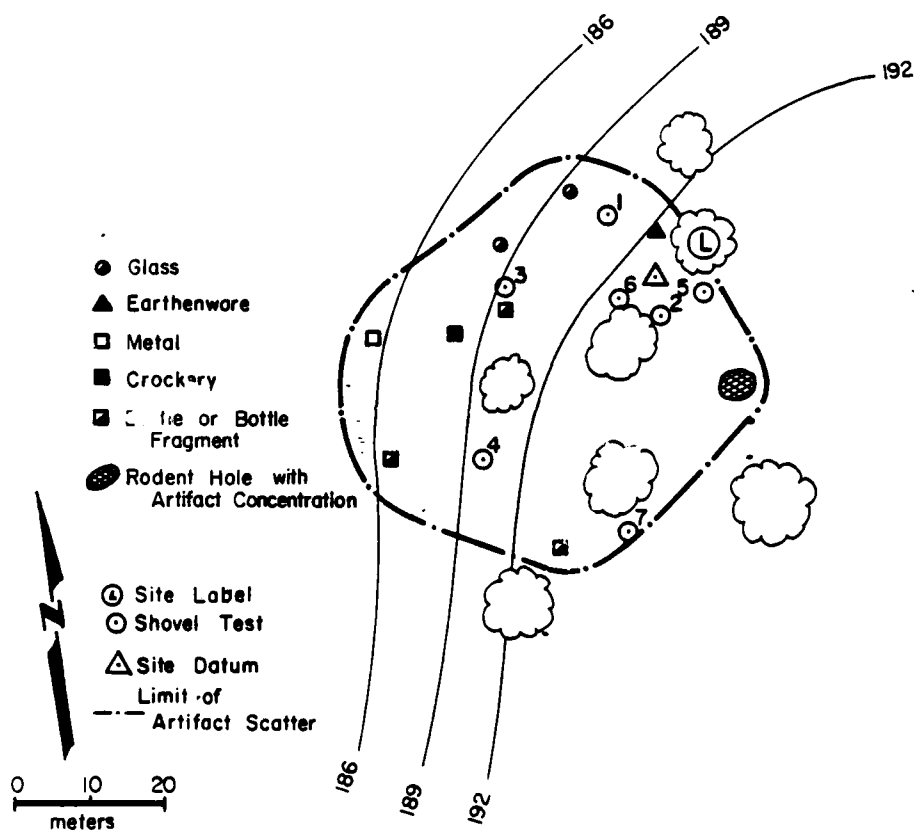


Figure 4-13. Plan of historic site 41DN88.



bottle glass fragments and one whole bottle were recovered from the surface. Of the lip/neck fragments, two were tool-finished and one was machine-finished.

Summary

Site 41DN88 presumably functioned as a dump and has little depth. Through testing and site recording, an adequate sample of artifacts has been obtained. For these reasons, no more work is recommended for this site.

41DN91

41DN91 is an historic habitation site situated on the top of the T1 terrace at an elevation of about 186 m. The site is located 3.5 km northwest of the point at which Isle du Bois Creek and the Elm Fork of the Trinity flow together. It is situated atop a small rise in the center of a pasture (Figure 4-14) and consists of the remains of a limestone structural foundation (Figure 4-15), two wells, a root cellar, and an associated artifact scatter consisting of broken ceramics, glass, bricks, car parts, and furnace parts.

The structure foundation appears to face south and is composed largely of unshaped sandstone blocks. The only exception to this is a large rectangular block which appears to have been placed to function as a step into the interior of the structure which was raised on sandstone blocks. The structure interior would have measured 10 m east-to-west by 7 m north-to-south. The floor apparently was supported by a double row of piers placed about 2 m apart beneath the structure. About 4 m south of the main structure is another row of smaller limestone blocks which may have delineated a porch area. If this is true, the porch would have been at ground level, as evidenced both by the lack of piers to raise the floor and by the presence of a step up into the structure interior from the porch.

The structure foundation plan is very traditional and is duplicated by a standing structure close-by (41DN125) which was built in 1911. The existing structure, however, has a raised front porch, and a foundation of brick, concrete, and cinder blocks (Figure 4-15).

The area of occupation, including the artifact scatter, is about 155 m north-to-south by 67 m east-to-west and covers about 0.70 ha. The soil is a Lewisville clay loam.

Testing Results

Subsurface investigations at 41DN91 consisted of eight auger holes placed in various locations across the site (Figure 4-14) and two excavation units. The majority of the auger holes went to depth of 40 cm below the surface, while two were excavated to a depth of 100 cm. The first of these deep tests, Auger Hole 1, was placed in a cellar depression to the northwest of the stone foundation, while the second, Auger Hole 6, was placed about 25 m north of the foundation and was excavated for soil samples. The results of the augering at 41DN91 are presented in Appendix 4.

Test Unit 1 was placed on the northwest area of the site in the center of the root cellar after Auger Hole 1 yielded a high density of cultural material. Most of the artifacts were collected in the upper seven levels which were each 10 cm thick. The last level from 90 to 105 cm below surface, began to yield sterile soil at approximately 93 cm. A stratigraphic description of 41DN91 can be seen in Appendix 4, and Figure 4-16 shows the excavation levels superimposed over the natural levels.

41 DN 91

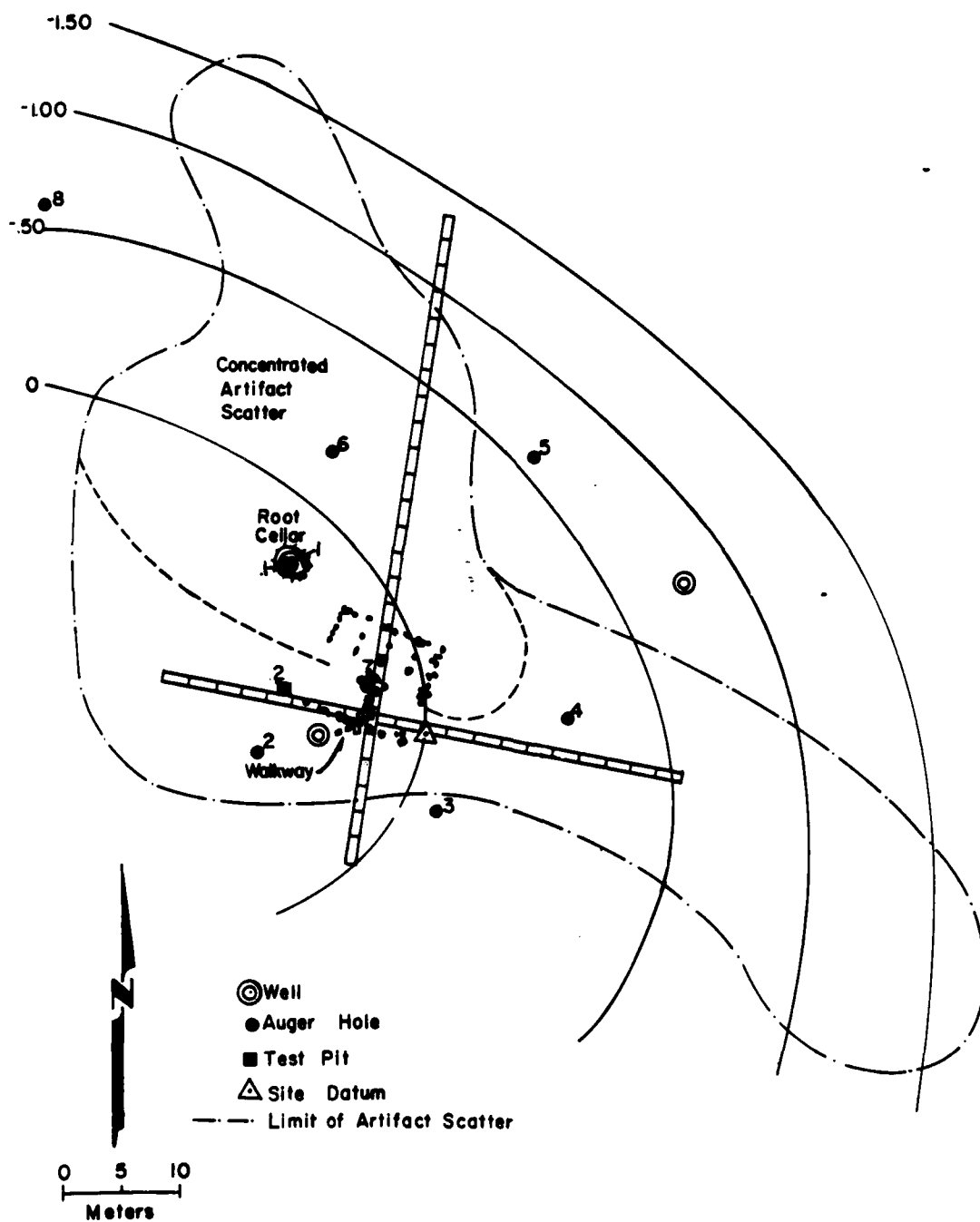
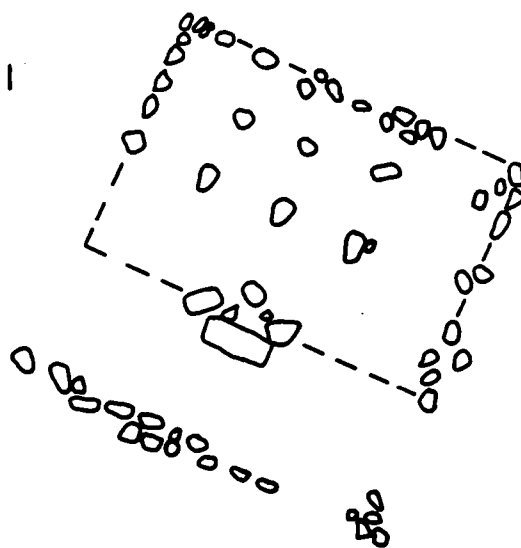


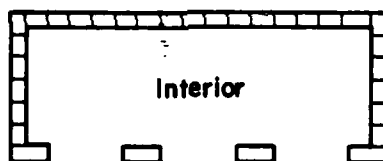
Figure 4-14. Contour map of historic site 41DN91, showing locations of test units.



A. 41 DN 91



B. 41 DN 125



Cinder Blocks



Concrete Pylons

Porch



Brick Pylons



0 5 10 Meters

(Approximate Scale)

Figure 4-15. Comparison of foundations of 41DN91 and standing structure 41DN125.



41 DN 91 - TEST UNIT I

EAST WALL

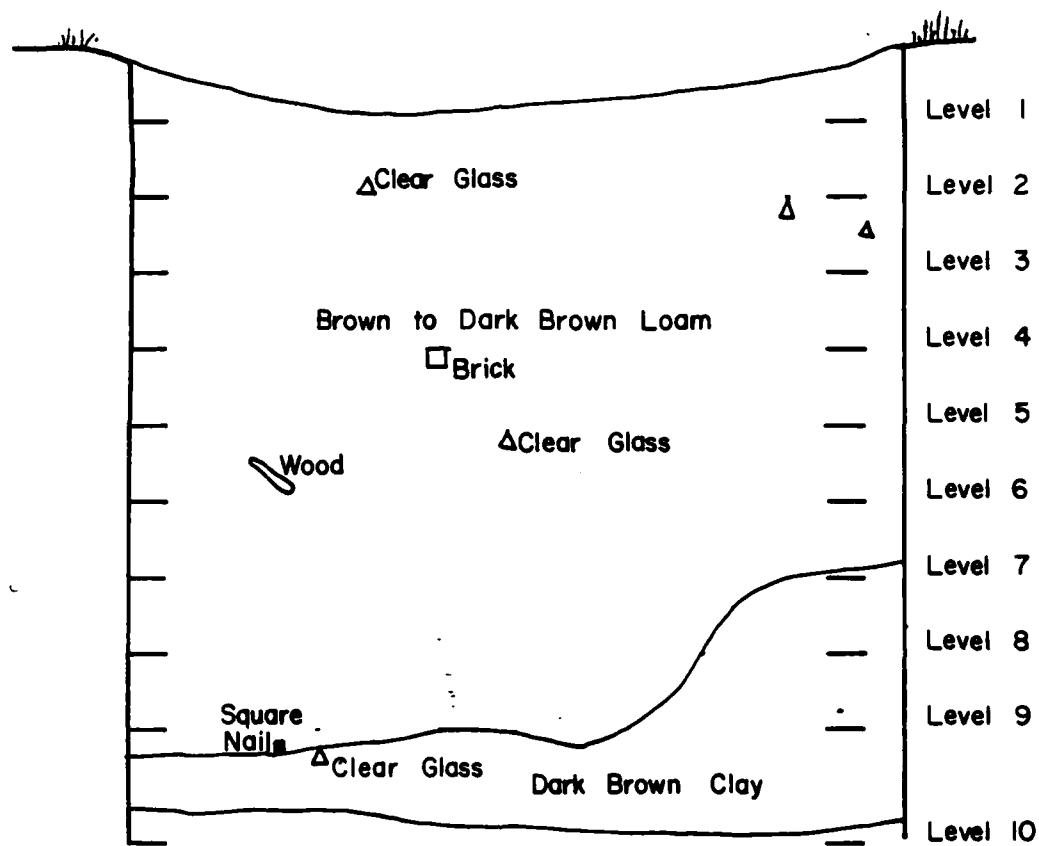


Figure 4-16. Eastern profile of Test Unit 1, 41DN91.



Located on the southwestern margin of the site, Test Unit 2 was placed on a small rise believed to be a trash dump. The artifact density was highest in the upper 20 cm of the unit. Because of the low artifact density in the level from 30 to 40 cm below surface, the unit was terminated. A stratigraphic description of Test Unit 2 is given in Appendix 4, and Figure 4-17 shows the excavation levels superimposed over the natural levels.

Artifacts

The historic artifact assemblage recovered from 41DN91 consists of 2,925 items. The artifact inventory is presented in Table 4-5. Ceramics represent 16% of the total assemblage. Glass items comprise 50% of the artifactual assemblage, while 33% of the artifacts were manufactured from metal. The remaining artifacts (0.8%) are plastic, rubber, wood, mortar, and Mother-of-Pearl button. Figure 4-18 presents some of the artifacts recovered from site 41DN91.

Summary

The results indicate that the depth of the cultural deposits at 41DN91 vary from 20 to 40 cm, with 120 cm of deposit present in the cellar. The subsurface material is confined to an area within a radius of 20 to 30 m of the center of the structural foundation, with only surface material beyond this. Testing confirmed the presence of a trash mound to the southwest of the site. A site such as 41DN91 with good archaeological potential in this part of the project area should be investigated further to gain a more thorough understanding of regional settlement growth and chronology.

41DN92

Site 41DN92 is an historic occupation site located on the edge of the T1 terrace at an elevation of 192 m. The site is situated about 1.25 km south of Farm-to-Market Road (FM) 455 and 0.5 km east of the Elm Fork of the Trinity River.

The site consists of two collapsed structures, a low mound, a burned brick and limestone concentration, a cellar, and an historic artifact scatter (Figure 4-19). Artifacts noted at the site consist of bottle glass, brick, cut nails, and miscellaneous metal fragments. The site covers an area of 0.35 ha and extends about 63 m north-to-south and 80 m east-to-west. The site is situated on Justin fine sandy loam.

Testing Results

Subsurface testing at 41DN92 consisted of six shovel tests. All six of the shovel tests revealed subsurface material. All tests were excavated to a depth of 30 cm below surface except Shovel Test 6 which was terminated at 25 cm because gravel was encountered.

Historic Background

James Matthews patented 320 ac containing site 41DN92 in 1859 (Patent, A:255). None of the data available state if he lived on this tract, or how 223 ac of the tract came to belong to John and Christine Downard by 1883. In that year, the Downards sold this property to J.R. Sullivan for \$800 (W.D., U:254). This tract adjoins land on the north owned by Sullivan's father, C.S. Sullivan. The Sullivans and Hammons families were some of the earliest settlers in this area, and by the 1880s the Sullivan landholdings were extensive. Sullivan did not sell his property containing 41DN92 until 1912 (W.D.,

41 DN 91 - TEST UNIT 2

WEST WALL

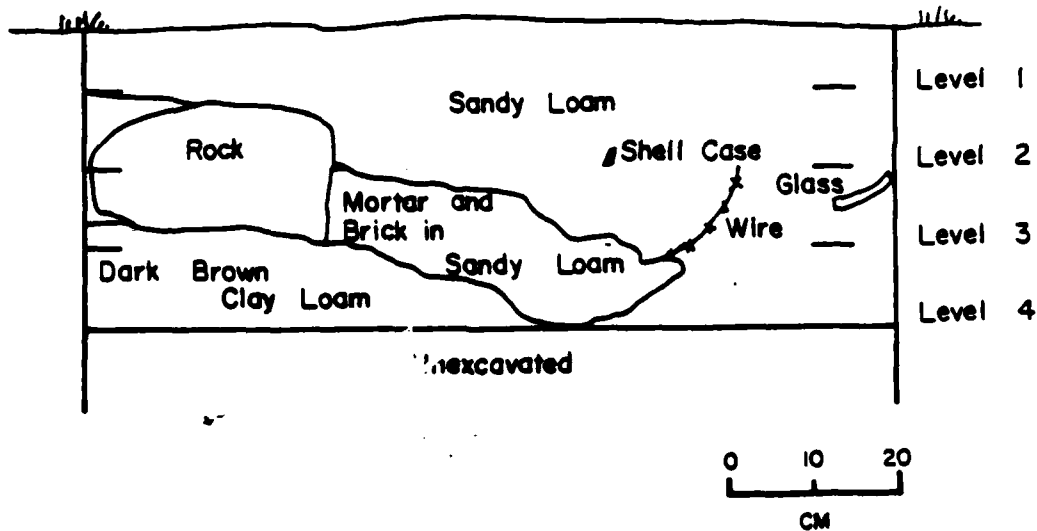


Figure 4-17. Western profile of Test Unit 2, 41DN91.

126:392), but references in the tract description indicate that the 223-ac tract had been divided more than once, with parcels sold to James Vandever and a member of the Cates family. Sullivan sold the property (two tracts totaling 88.3 ac) to L.G. Harris for \$2,384. Harris sold it to A. E. Peters in 1919 for \$6,262 (W.D., 170:162). According to Elsie Morrow (1-18-81), Peters owned the land but lived in town and rented the land to area farmers.

The Peters place contained two rental farmsteads, the north house and a south house, rented by Ernest Sullivan in the late 1940s. The only known renter of the house on site 41DN92 was Buck Hammons, who rented the property sometime in the 1940s. Mr. Hammons still lives in the neighborhood but was not available to be interviewed. Both houses are reported as being very old in the 1940s, constructed of rough planks and having four to five rooms. Ms. Morrow did not remember any outbuildings as being on the property about 1950.

Peters' wife sold both tracts (83.5 ac) to W. R. Chatfield in 1952 (W.D., 384:357). The land was put into pasture at that time, and the site was abandoned at or slightly before that time. Chatfield still owns the property.

Artifacts

The historic assemblage from 41DN92 consists of 51 artifacts. Glass bottle fragments account for 57% of the historic artifacts. Wire nails represent 12% of the inventory and square nails another 29%. Other metal artifacts include one spark plug, three aluminum "pop-top" rings, and one whole beer can. One flat plastic ring also was recovered. The historic artifact inventory is presented in Table 4-6.

Table 4-5.
Historic artifacts recovered: 41DN91

Type	Surface	Augering	Test Units		Total
			1	2	
CERAMIC					
Earthenware					
Plain decoration	5	8	152	20	185
Plain decoration with- maker's mark	2		2		4
Mold decorated		1	3	1	5
Mold decorated/blue slip		1			1
Flow blue transfer print		1			1
Blue transfer print				3	3
Green transfer print			1		1
Decalcomania				1	1
Painted			1		1
Slip			7	2	9
Slip/Glaze			7		7
Redware			9		9
Stoneware					
Albany/Glaze			24	11	35
Alkaline/Glaze			20	16	36
Bristol/Glaze			3	2	5
Salt glaze		1	10		11
Other slip			1	1	2
Other glaze			3		3
Majolica			1		1
Porcelain					
Plain decoration	1				1
Button			1		1
Brick					
Complete				1	1
Fragments		4	113	36	153
GLASS					
Bottle fragments					
Lip/neck					
Tool-finished					
Clear			1		1
Machine-finished					
Clear			17	4	21
Green			1		1
Brown			1		1
Blue-green			4	1	5
Dark green			1		1
Unidentified					
Clear			1		1
Body					
Clear	14	11	545	81	651
Purple		3	32	3	38
Green	2	19	60	49	130
Blue			1		1
Brown		1	54	9	64
Blue-green	1	5	95	51	152
Dark green			2		2
Molded/embossed					
Clear	1		8	1	10
Purple			2		2
Green		2			2
Blue-green		2		1	3
Base					
Unmarked					
Clear			7		7
Blue-green		1			1
Molded/embossed					
Clear			1	1	2
Purple				1	1
Blue-green	1		1		2

Table 4-5. (Cont.)

Type	Surface	Augering	Test Units		Total
			1	2	
Milk glass					
White					
Jar liner			2	1	3
Other				1	1
Blue					
Other			1		1
Hollowware-unmarked		1			1
Unidentified tableware-					
press molded			1	2	3
Window plate	10		287	35	332
Chimney glass			4	10	14
Melted glass		1	2	7	10
METAL					
Wire nail		1	92	19	112
Square nail	1	3	359	61	424
Staple			10	1	11
Screw			1	1	2
Wire			88	16	104
Barbed wire		2	4		6
Railroad spike		1			1
Nut		2			2
Bolt			1	1	2
Washer			2	1	3
Rivet			2	2	4
Bullet cartridge			2	2	4
Tubing			1		1
Fork fragment				2	2
Iron wagon strap				1	1
Metal button				1	1
Snap			1		1
Plate iron			2		2
Pull ring				1	1
Metal jar lid				1	1
Claw hammer head				1	1
Gear			1	1	2
Metal rod				1	1
Buckle			1		1
Wire tack			1		1
Iron strap			1		1
Grommet			1		1
Eye-hook bolt			1		1
Bucket pail			1		1
Cable fastener			1		1
Iron loop			1		1
Pulley shackle			1		1
Muffler exhaust pipe			1		1
Stove fragments			3		3
Salt shaker top			1		1
Tin can top			1		1
Zinc bottle cap			1		1
Unidentified	1	4	215	34	254
OTHER					
Plastic				2	2
Rubber				5	5
Wood			5		5
Mortar			2	11	13
Mother-of-pearl button	—	—	1	—	1
TOTAL	39	73	2296	517	2925

Figure 4-18. Historic artifacts from 41DN91 and 41DN94: 41DN91--(a,b,c) transfer print on white paste earthenware; (d) white paste earthenware with maker's mark; (e) earthenware with rim band, 1920s; (f) white paste earthenware with decalcomania design.



a



b



c



d



e



f



41 DN 92

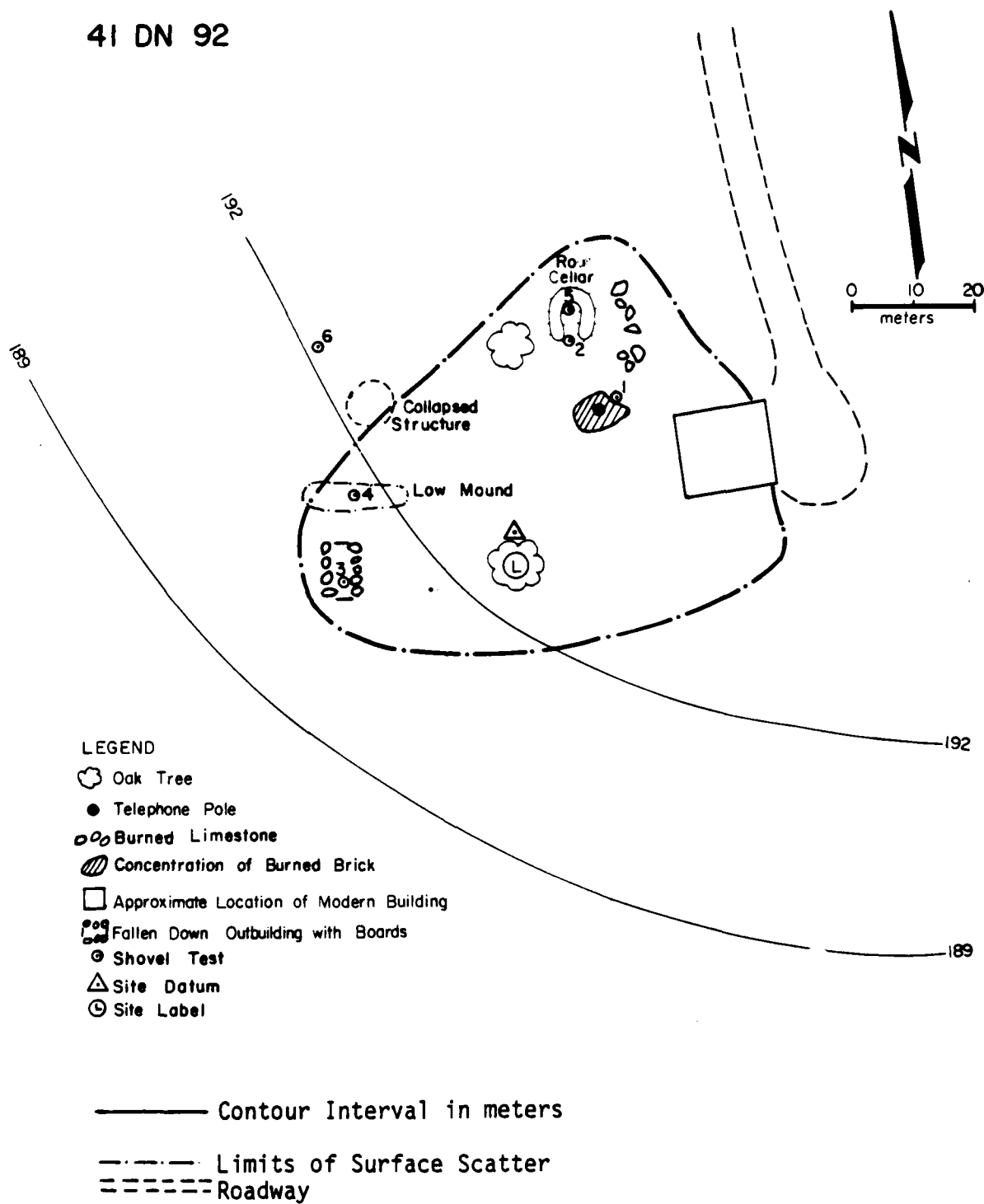


Figure 4-19. Plan of historic site 41DN92.



Table 4-6.
Historic artifacts recovered: 41DN92

Type	Surface	Shovel testing	Total
CERAMIC			
Stoneware			
Albany/Glaze		1	1
GLASS			
Bottle fragments			
Body			
Unmarked			
Clear		8	8
Green		1	1
Brown		13	13
Blue-green		1	1
Molded/embossed			
Brown		2	2
Base			
Mold marked/embossed			
Clear		1	1
Brown		3	3
METAL			
Wire nail		6	6
Square nail	3	6	9
Spark plug		1	1
Aluminum flip-top ring		3	3
Complete beer can		1	1
OTHER			
Flat plastic ring	-	1	1
TOTAL	3	48	51

iry

DN92 is a surface scatter with a modern shed and a collapsed outbuilding. It has cellar with many modern bottles. The site has been disturbed by recent activity, trace of early occupation was observed. For these reasons no more work is needed for this site.

4

4 is an historic occupation site located in the middle of the T1 terrace, south of a intermittent eastward flowing drainage. The site is located 3.0 km west of the fork of the Trinity River, near its junction with Isle du Bois Creek at an elevation of 184 m. The site is Justin fine sandy loam, and the current use of the land is

e consists of a sparse surface scatter of historic artifacts including broken glass, ceramics, brick, wire, a hinge, a mason jar lid, and a metal spike. The south end of e exhibits several small depressions which are probably cellars. North of these depressions is a large depressed rectangular area, probably the drip line from a structure. A scatter of stones is associated with this depression and may be the remains of a stone foundation (Figure 4-20). There was no discernible pattern to the artifacts. Concentrations of glass and ceramics exist in the northern portion of the site. A glass concentration was noted at the south end near the depressions.

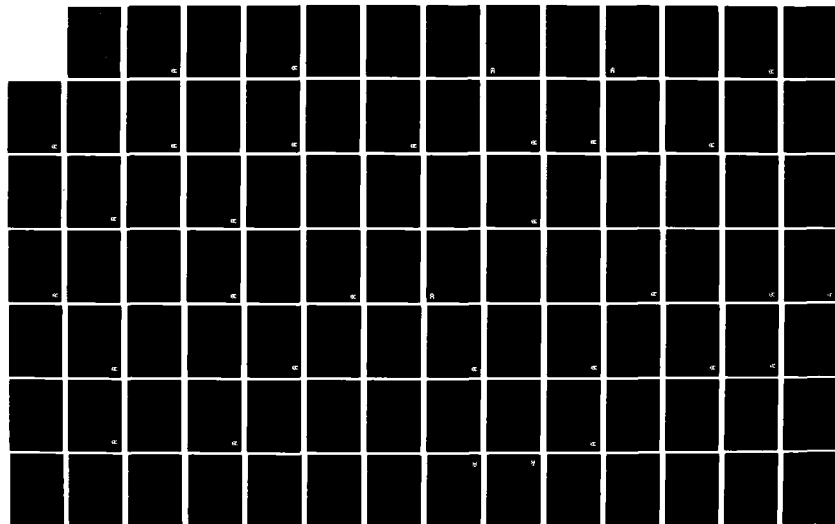
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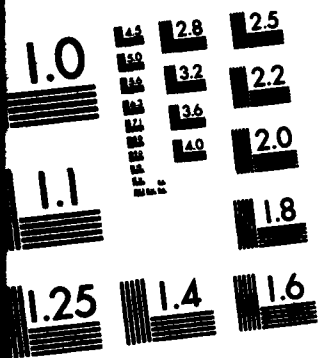
ARCHAEOLOGY AND HISTORY OF LAKE RAY ROBERTS VOLUME 2
CONSTRUCTION AREA TEL. (U) ENVIRONMENT CONSULTANTS INC
DALLAS TX 5 A SKINNER ET AL. 09 APR 82 CRR-82-9-VOL-2
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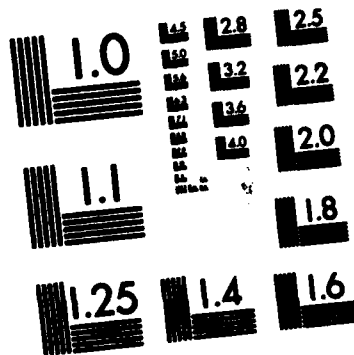
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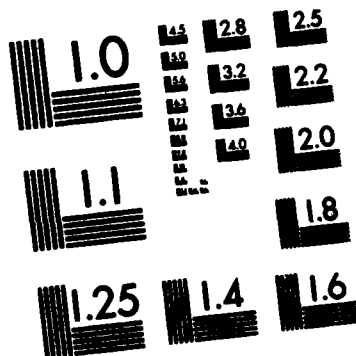




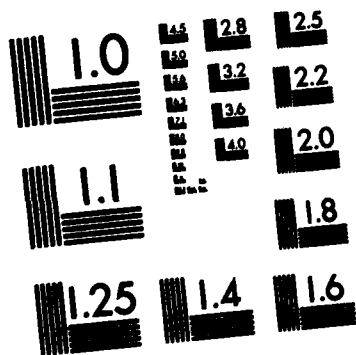
MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A



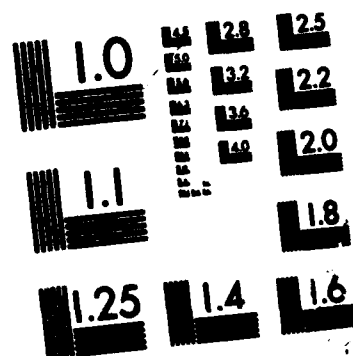
MICROCOPY RESOLUTION TEST CHART
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MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

4I DN 94

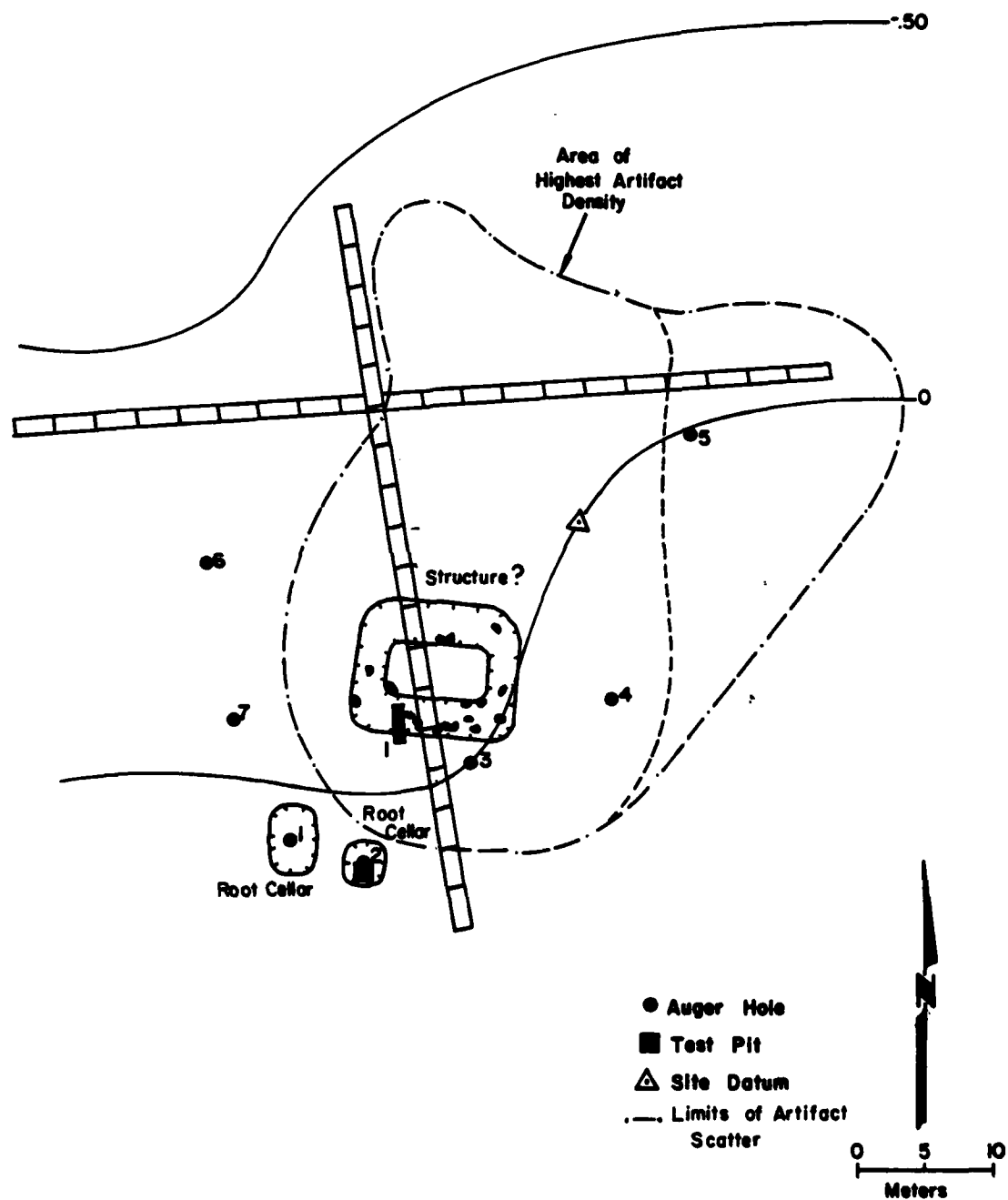


Figure 4-20. Contour map of historic site 4I DN 94, showing locations of test units.



artifact scatter extends about 55 m north-to-south by 50 m east-to-west, and covers about 0.20 ha in area.

A farmstead is shown at the location of 41DN94 on the 1917 Denton County soil survey map, and the preliminary survey evaluation dated this site at around 1900. Prior to testing, 41DN94 was believed to date at least to the late facet of the Competition phase (1875-1935).

Subsurface evaluations of 41DN94 are based on seven auger holes and two test excavations which were placed at various locations across the site (Figure 4-20). Only Auger Holes 1 and 2, placed in the two cellar depressions south of the structure location, revealed any subsurface material. In both of these instances, the cellars proved to contain a large amount of cultural debris.

Test Unit 1 was a 2 m x 0.5 m trench placed in the south-central part of the structure mound. Test Unit 2 was a 1 x 1 m pit placed in the eastern cellar depression because of data received from Auger Hole 2. The stratigraphy associated with Test Unit 2 is presented in Appendix 4. The north profile of Test Unit 2 is presented in Figure 4-21. There is no profile for Test Unit 1 because the unit is only 20 cm deep and the soil is a homogenous greyish brown (10 YR 5/2) clay loam.

Subsequent to the auger testing of 41DN94, two collection transects were laid out across the center of the site. The north-south transect was 54 m long, and the east-west transect was 60 m long. Very little material was collected within the limits of the transects. What was collected was located generally to the northeast of the apparent structure location. Only seven artifacts were collected from an area of about 63 m², yielding an average surface density of 0.1 artifact per m², or 9 m² per artifact.

Artifacts

Based on the artifacts, this site has an assigned time period of post-1880 to recent times. The 1880 date is derived from a milk glass jar liner.

Controlled surface collection, augering, and excavation at 41DN94 yielded 9,936 artifacts. Over 95% of these were recovered from Test Unit 2, the unit placed in an apparent root cellar which had been reused as a trash dump.

All ceramics including brick, comprise only 2.7% of the artifacts. A ceramic doll was recovered. Of the remainder, 22.5% is glass, 67.8% is metal, and 7.0% are made from other materials, including leather and rubber from shoes, rubber tire fragments, wood, and plastic. Many of the identifiable metal items are parts of machinery or farm equipment, including tools, chain links, bailing wire, drain plug, harness ring and buckle, and copper electrical parts. Domestic items include a frying pan fragment, safety pin, zinc fruit jar lids, clock fragment, and a lead top from a squeeze tube. Domestic glass items include screw caps, lamp base, bead, vaseline jar, Mentholatum jar, and Listerine bottle, in addition to unidentifiable bottles and numerous fragments. The artifact inventory is summarized in Table 4-7, and Figure 4-19 presents some artifacts recovered from site 41DN94.

Summary

Site 41DN94 is a farmstead location consisting of root cellars, a structure outline, and a surface scatter. Except for the root cellar, the site had little depth. A large amount of

41 DN 94-TEST UNIT 2

NORTH WALL

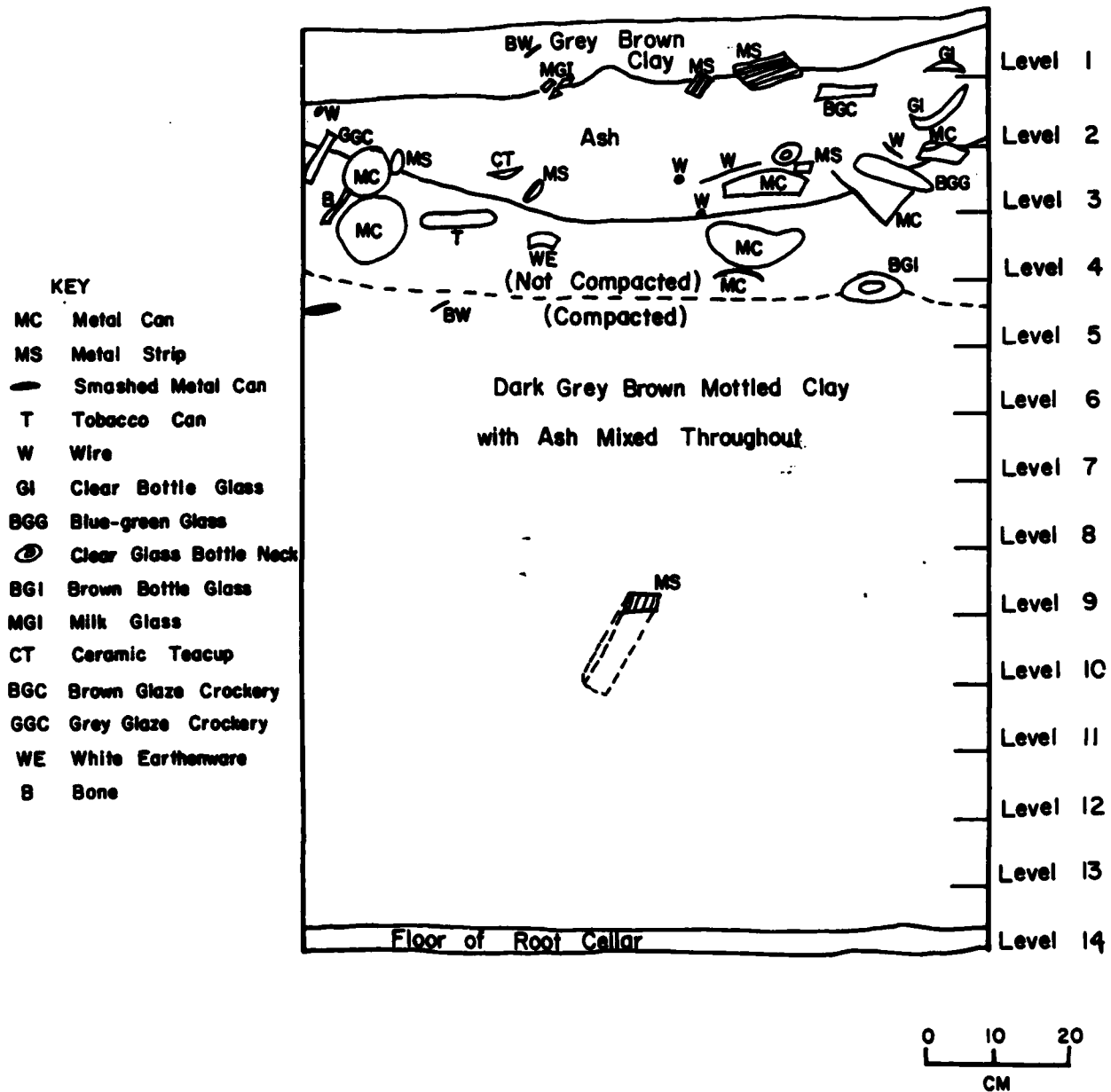


Figure 4-21. Northern profile of Test Unit 2, 41DN94.

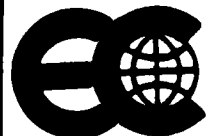


Table 4-7.
Historic artifacts recovered: 41DN94

Type	Surface	Augering	Test Units		Total
			1	2	
CERAMIC					
Earthenware					
Plain decoration	5	1	2	127	135
Plain decoration with maker's mark				4	4
Mold decorated				22	22
Blue transfer print				2	2
Green transfer print				1	1
Annular banded	1			6	7
Decalcomania	3			16	19
Hand painted				2	2
Mold decorated/annular banded	1				1
Mold decorated/ decalcomania				14	14
Stoneware					
Albany/Glaze				2	2
Bristol/Glaze				8	8
Albany/Glaze interior, Bristol/Glaze exterior with lead glaze	1				1
Bristol/Glaze over mold decoration			1	2	3
Porcelain					
Plain decoration	1			11	12
Mold decoration				3	3
Decalcomania	2			7	9
Painted			1	15	16
Decalcomania/mold decoration				1	1
Decalcomania/gilded band				1	1
Brick fragments				7	7
Ceramic doll				1	1
GLASS					
Bottle fragments					
Lip/neck					
Tool-finished					
Purple				5	5
Blue-green				1	1
Machine-finished					
Clear				28	28
Green				10	10
Brown		3		5	8
Blue-green		4		7	11
Body					
Unmarked					
Clear	13	13	48	714	788
Purple				42	42
Green	17	1	12	147	177
Blue			10	1	11
Brown	3	6	1	130	140
Blue-green	2	1		196	199
Olive				3	3
Molded/embossed					
Clear		2	5	38	45
Purple				15	15
Green				17	17
Blue				1	1
Brown			2	2	4
Blue-green				21	21
Base					
Unmarked					
Clear				7	7
Purple				1	1
Green				4	4
Brown				10	10
Blue-green				3	3

Table 4-7. (Cont.)

Type	Surface	Augering	Test Units		Total
			1	2	
Mold marked/embossed					
Clear	4	4		11	19
Purple				3	3
Green				2	2
Blue				1	1
Brown				11	11
Blue-green				1	1
Complete bottles					
Semi-automatic bottle machine					
Clear-unidentified				1	1
Blue-unidentified				1	1
Automatic bottle machine					
Clear				1	1
Whiskey				10	10
Medicinal				2	2
Foodstuff				8	8
Unidentified				1	1
Green-unidentified				1	1
Brown-snuff	1			1	2
Milk glass					
White					
Jar liner	2		7	383	392
Other	3			48	51
Tumbler/glass/mug					
Unmarked				2	2
Press molded				8	8
Hollowware					
Unmarked				3	3
Press molded				22	22
Tableware-lid-press molded				2	2
Chimney glass				33	33
Window plate glass				37	37
Tubing				16	16
Refrigerator crisper				3	3
Lamp base				1	1
Bead				1	1
Unidentified				1	1
METAL					
Wire nail	2		1	212	215
Square nail				22	22
Staple				67	67
Wire				496	496
Hinge	1			2	3
Farm equipment		1		41	42
Domestic	1		2	168	171
Barbed wire				39	39
Shoe grommet				27	27
Unidentified tin				797	797
Unidentified		18	72	4764	4854
OTHER					
Plastic			1	2	3
Rubber		1		338	339
Wood			7	253	260
Leather				34	34
Mortar			9	30	39
Coal				8	8
Fabric				11	11
Shell button				1	1
TOTAL	63	56	181	9636	9936

secondary trash was retrieved from the root cellar. Additional work at this site is not recommended.

41DN95

Site 41DN95 is an historic occupation locality situated on a slight slope on the T1 terrace at an elevation of about 186 m. The site is located 3.25 km due west of the point at which Isle du Bois Creek and the Elm Fork of the Trinity flow together, and about 0.2 km south of an intermittent drainage which flows eastward into the Elm Fork.

41DN95 and 41DN96 are actually a single site but were initially identified as two sites because of access problems during the survey. 41DN95, the western half of the site, has a well on the site in addition to numerous household artifacts, including broken window glass, bottle glass, crockery, other ceramic items, nails, and unidentifiable metal fragments. Several wooden planks were noted in association with the artifact scatter and well. The site measures about 68 m north-to-south by 84 m east-to-west and encompasses an area of 0.35 ha (Figure 4-22).

The soil is a Navo clay loam. The site exists on land currently used for pasture, and mesquite trees presently surround the area.

Initially, this site was given a post-1900 date by the survey team, but it was later noted that the site fails to show up on the 1917 map of Denton County. Based on this evidence, prior to the testing of this site, it was believed that 41DN95 was pre-1900 in date, and apparently belonged at least to the early facet of the Competition phase of historic occupation.

Testing Results and Artifacts

Subsurface testing at 41DN95 consisted of six auger holes placed in the area of the artifact scatter. None of the auger holes revealed any subsurface cultural deposits associated with the site.

Following the augering, two collection transects were laid out. The north-south transect was 42 m long, and the east-west transect was 54 m long. A large amount of material was collected from the central portion of the north-south line, and the western portion of the east-west line. Approximately 21 artifacts were collected from an area of 48 m² within this concentration, yielding an average figure of 0.43 artifacts per m² or 2.28 m² per artifact.

Historic artifacts collected from 41DN95 include 29 ceramic sherds, 10 glass fragments, 3 metal pieces, and 1 plastic button. This assemblage suggests an occupation from the mid-1800s through the early 1930s. The ceramics include plain, undecorated, white paste earthenware, as well as stoneware. The decorated earthenware consists of brown slip/glaze, painted ware, blue feather edge decoration, and decalcomania. Nine bottle fragments are body pieces. The remaining piece is blue-green tool-finished lip/neck fragment. The latter is decorated with brown slip, brown slip/glaze, and salt glaze, and one hand painted sherd. The bottle glass is represented by purple, blue-green, and brown bottle/jar fragments. Three square nail fragments and a complete square nail also were collected.

41 DN 95

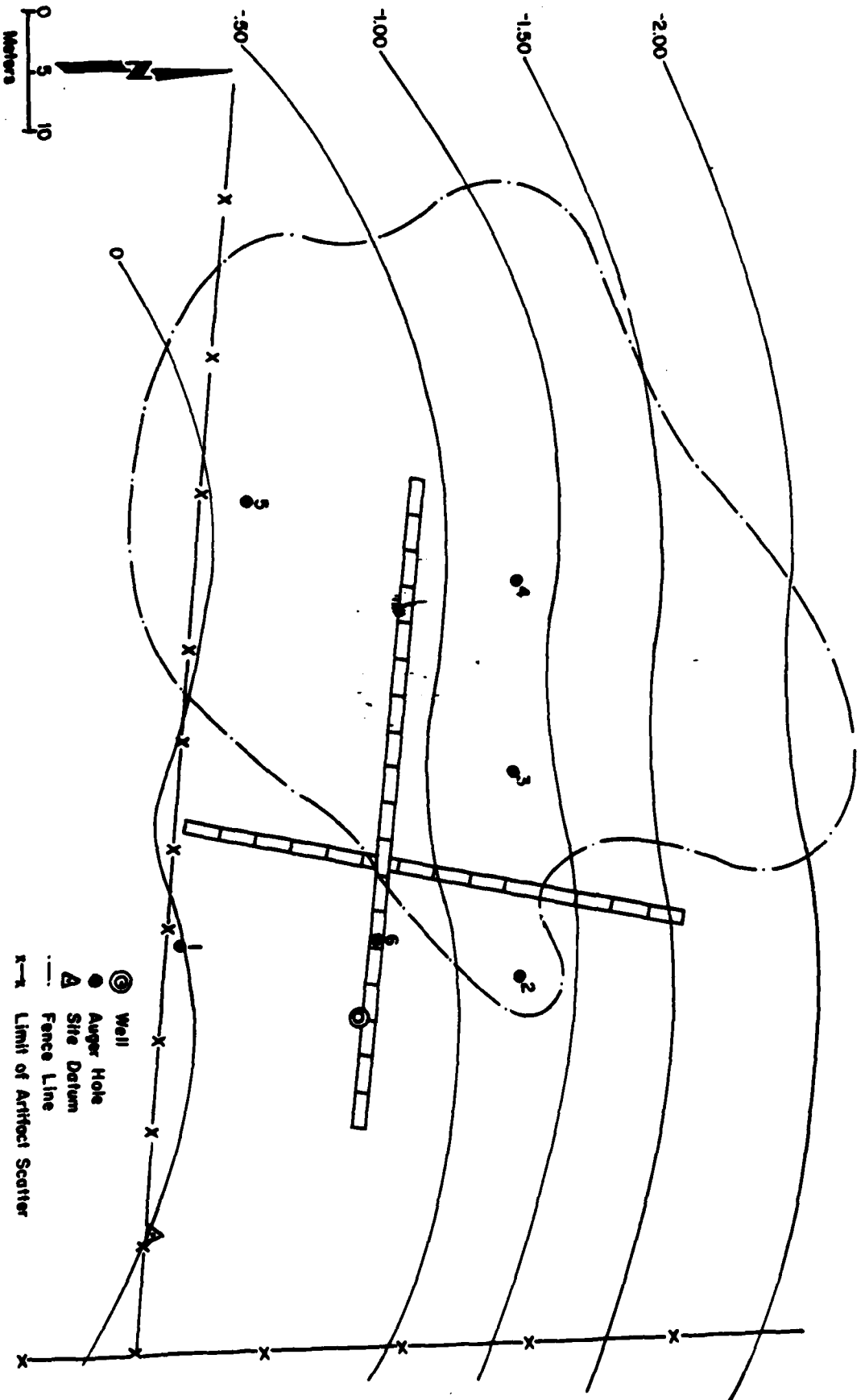


Figure 4-22. Contour map of historic site 41 DN 95, showing locations of test units.



Summary

Site 41DN95 and 41DN96 are a single farmstead location. A well was the only feature present. Testing showed that the site had no depth. No additional work is recommended for this site.

41DN96

Site 41DN96 consists of a scatter of historic artifacts on a small rise on top of the T1 terrace at about 183 m in elevation. The site is located 3.1 km due west of the point at which Isle du Bois Creek and the Elm Fork of the Trinity flow together, and it is 0.2 km south of an intermittent drainage which flows eastward into the Elm Fork.

The site consists of a sparse surface scatter of historic household debris including broken ceramics, bottle glass, and unidentifiable metal fragments, plus a rather sizable area of scattered stones, including fragments of sandstone, limestone, and ironstone (Figure 4-23). Some of these fragments are burned and may be from an early structure. The majority of the artifacts on the surface seems to be concentrated along the western edge of the site. The size of the site is about 0.23 ha, being about 40 m north-to-south by 80 m east-to-west. 41DN95 and 41DN96 are actually a single site but initially were identified as two sites because of access problems during the survey.

Site 41DN96 exists in a Navo clay loam, and the area is presently being used as pasture. According to the landowner, Mr. Carl Sadau, the pasture had not been plowed in the last 30 to 35 years.

This site originally was estimated as being pre-1900 in date by the survey crew, and the fact that it fails to appear on the 1917 map of Denton County seems to support this interpretation.

Testing Results and Artifacts

Subsurface testing of 41DN96 consisted of 1 excavation unit and 14 auger holes placed across the surface of the site. The majority of these auger tests went to 40 cm below the surface and failed to reveal any amount of buried cultural material.

Two collection transects were laid out across the surface of the site. The first of these ran generally southwest to northeast and was 63 m long, and the second transect ran from the southeast to the northwest and was about 102 m long. A total of only 14 artifacts was collected from an area of 105 m², yielding an average density of 0.13 artifacts per m², or 7.5 m² per artifact. Within the area of the stone scatter, 71 stones were observed within 126 m². This is an average density of 0.5 stones per m² or 1.7 m² per stone.

Test Unit 1 at 41DN96 was placed northeast of Auger Hole 3. Although the auger hole did not yield any artifacts, this spot had a high concentration of surface artifacts. Test Unit 1 produced very few artifacts consisting of nails, glass, metal fragments, whiteware, ceramics, and a chert flake. All of the artifacts were collected from Level 1 in the upper 5 cm. Level 2 was sterile. The unit was terminated at a depth of 20 cm below surface. Disturbance was evidenced by the animal burrows and worm casts. The matrix of Level 1 consisted of brown (10 YR 4/3) clay loam. The matrix of Level 2 consisted of brown (10 YR 4/3) clay.

41 DN 96

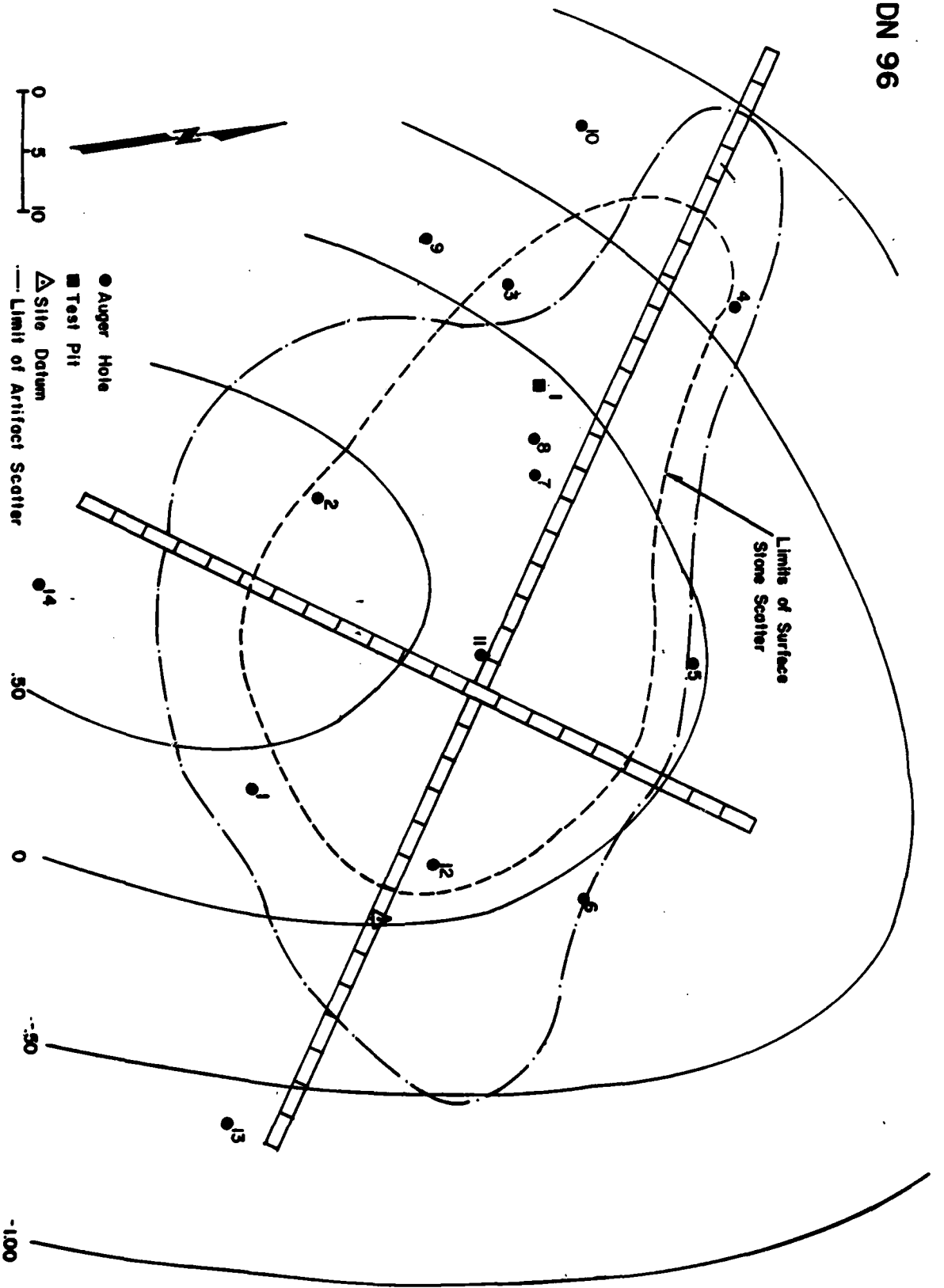


Figure 4-23. Contour map of historic site 41 DN 96, showing locations of test units.



One prehistoric artifact, a small flake, was collected from the surface of 41DN96. Historic artifacts collected during the transects from 41DN96 included 11 ceramic sherds, one glass fragment, and one unidentified iron/steel fragment.

The historic artifactual assemblage represented at this site supports a temporal assignment of pre-1900. This is suggested by grey-salt glazed stoneware. The period from 1840 is marked by one sherd of white paste earthenware decorated with blue transfer print that has been painted. The blue shell-feather edge decorated earthenware sherd provides a pre-1880 date. There are no artifacts which can provide a definite post-1900 date.

Non-diagnostic historic artifacts from the assemblage are blue-green bottle glass, plain undecorated white paste earthenware, and other stoneware including those with a grey glaze and multi-colored glaze.

Summary

Site 41DN96 and 41DN95 are a single farmstead location. A surface scatter was observed but testing showed no site depth. No additional work is recommended for this site.

41DN97

Site 41DN97 is an historic settlement situated on the edge of the T2 terrace in a pasture surrounded by deciduous trees. An unimproved dirt road bisects the site. The site is located 1.5 km west of Isle du Bois Creek and 0.5 km east of Johnson Branch at the 195 m contour. The area of occupation, including the artifact scatter, is about 0.62 ha and is about 50 m north-to-south by 45 m east-to-west. The site exists on Callisburg fine sandy loam and does not appear to be significantly disturbed because the area today is utilized only for pasture.

Site 41DN97 consists of two cellars, a trash pit, and a very sparse artifact scatter. A possible structure foundation exists to the east of the cellars. This foundation consists of several limestone slabs and blocks in a rough north-south alignment (Figure 4-24).

This site originally was estimated as post-1900 by the survey team because it appears on the 1917 Denton County map. This is a reasonable conservative estimate.

Historic Background

In 1880, 119.5 ac containing 41DN97 was patented to N.W. Laird. Laird and his wife, Kisiah, deeded the land to F.M. Laird in 1881. F.M. Laird continued to own the land until 1904 according to the school tax records. The next mention of a transaction concerning 41DN97 was in 1911 when N.H. Laird sold the land to P.C. Boozer for \$500.00. In 1913, Boozer acquired an adjacent tract of land and, in 1917, sold these two tracts to George M. Hammons for \$3,500.00. J.L. Menasco bought the two tracts of land for \$9,000.00 in 1918. In 1925, a group of people including Menasco, J.J. Hammons, and the Sanger National Bank sold the land to the Scottish American Mortgage Company which owned the land until 1943, when it was sold to Nugent W. Jones. In 1950, the land was sold to W.M. Kennedy and, in 1975, A.M. Kennedy deeded the land to his son, David Asir. From deed information, the informants contacted knew nothing about the site.

41 DN 97

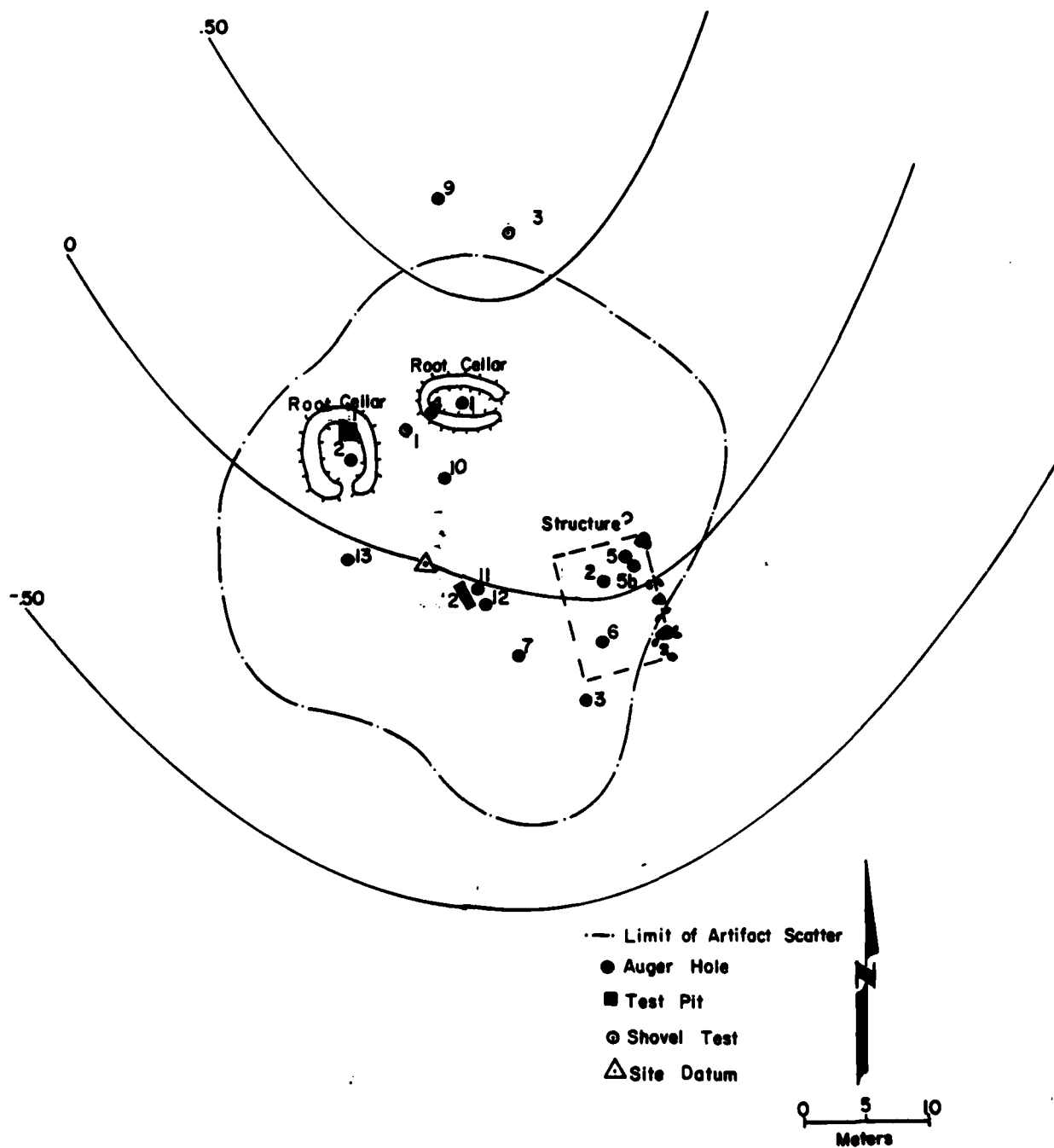


Figure 4-24. Contour map of historic site 41DN97, showing locations of test units.



Testing Results

Because of the extremely sparse surface scatter on this site, 41DN97 was not systematically surface collected. One artifact was picked up—a plain, undecorated earthenware sherd with a maker's mark. Subsurface testing on this site included 12 auger tests, 3 shallow shovel tests, and 2 test excavation units. The stratigraphic results of the subsurface testing are presented in Appendix 4. Only two of the auger tests, Auger Holes 2 and 11, placed in the western cellar and trash pit, revealed any artifactual material. This cellar contained artifactual material and charcoal to at least 100 cm deep. In contrast, the eastern cellar contained no artifacts, and only a small amount of charcoal at 100 cm. The trash pit contained artifactual material to at least 35 cm.

Because of the density of artifacts produced by Auger Hole 2 in the western cellar, Test Unit 1 was placed there. It is a 1 x 1 m unit placed in the northeast corner of the cellar depression. The unit was excavated in arbitrary 10 cm levels to the floor of the cellar. The north profile is shown in Figure 4-25. The left side of the profile shows cellar fill and the right side sections the cellar sidewall.

Test Unit 2 is a 2 x 0.5 m trench placed in the depression just southeast of datum and next to Auger Hole 11. It is a trash pit containing historic debris that was dug into subsurface clay. The northeast profile of Test Unit 2 is shown in Figure 4-26.

Artifacts

The testing program at 41DN97 yielded 662 historic artifacts. Tabulation of these artifacts is in Table 4-8. Ceramic artifacts comprise 16% of the total assemblage, glass artifacts are represented by 39% of the assemblage, and metal artifacts represent 44%. Other artifacts (plastic, wood, and a Mother-of-Pearl button) comprise 1%.

Summary

Site 41DN97 is an historic occupation site with a structure foundation, two root cellars, a trash pit, and scattered surface artifacts. A site such as 41DN97 with a good archaeological potential in this part of the project area should be investigated further to gain a more thorough understanding of regional settlement growth and chronology.

41DN100

Site 41DN100 is a scatter of historic artifacts located on a flat area of the T1 terrace at an elevation of about 184 m. The site is located 3.0 km west of the point where Isle du Bois Creek and the Elm Fork of the Trinity flow together, and 0.3 km south of a small intermittent drainage that flows eastward into the Elm Fork. The soil is an Altoga silty clay, and the land associated with the site is presently being used as pasture.

The site consists of a thin surface scatter of historic household debris including broken crockery, glass, and other ceramics in no apparent concentrations. No features such as cellars or wells were noted in association with the artifact scatter. The West Cemetery (41DN93) which contains at least three graves, is located approximately 80 m to the south-southeast of the artifact scatter of site 41DN100. The area of the artifact scatter is only about 0.18 ha and is 50 m north-to-south by 50 m east-to-west (Figure 4-27).

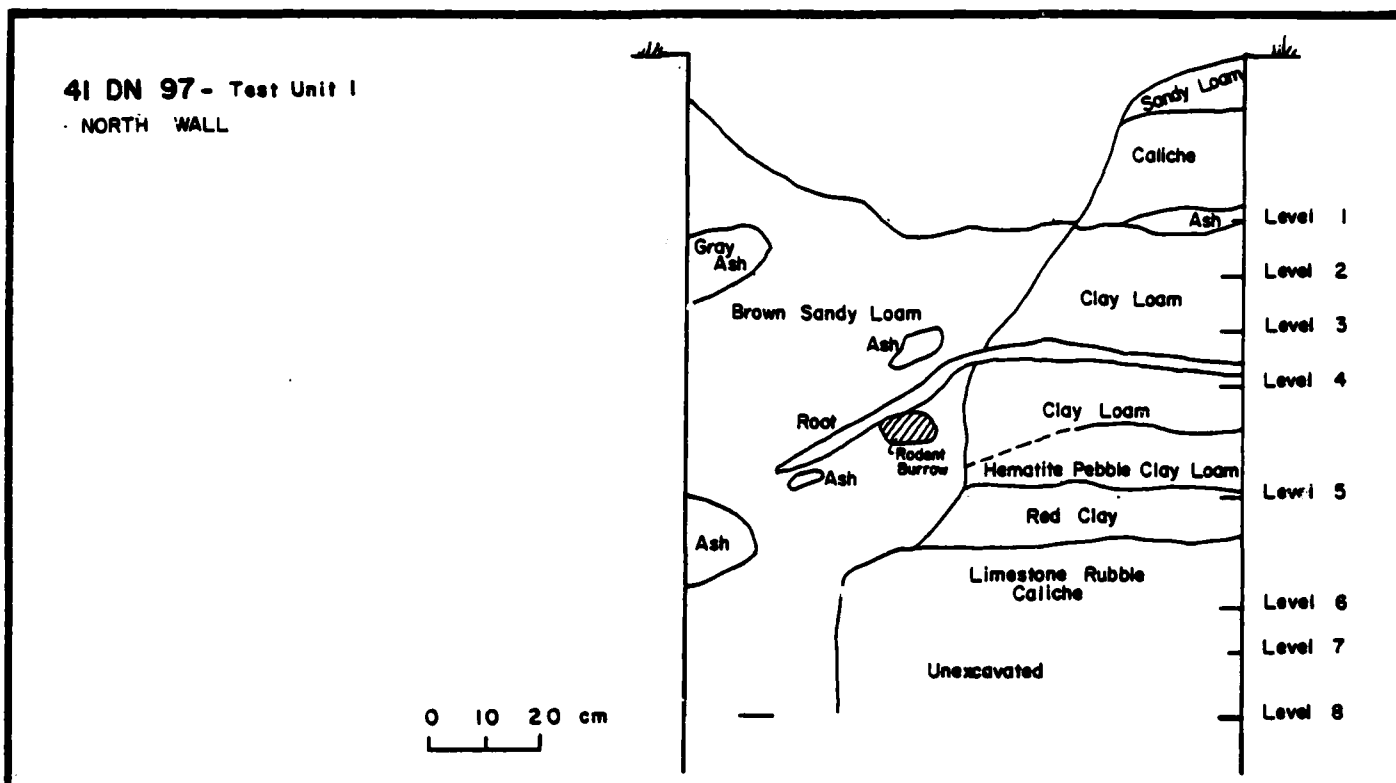


Figure 4-25. Northern profile of Test Unit 1, 41DN97.

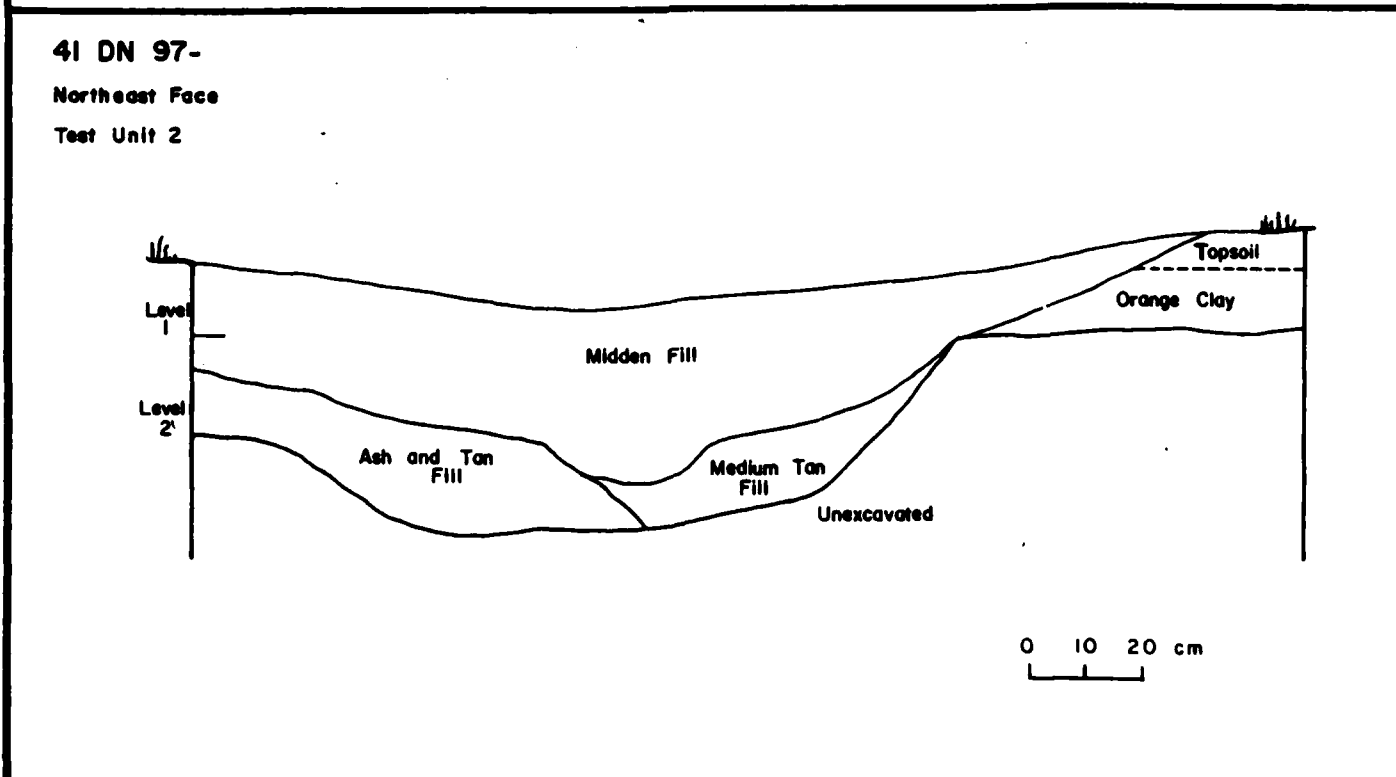


Figure 4-26. Northeastern profile of Test Unit 2, 41DN97.



Table 4-8.
Historic artifacts recovered: 41DN97

Type	Surface	Augering	Test Units		Total
			1	2	
CERAMIC					
Earthenware					
Plain decoration		2		48	50
Plain decoration with maker's mark	1			2	3
Mold decorated			2	9	11
Flow blue transfer print				4	4
Stoneware					
Albany/Glaze			1	4	5
Bristol/Glaze				7	7
Albany/Glaze interior with Bristol/Glaze interior			1	3	4
Porcelain					
Plain				2	2
Brick		2		18	20
GLASS					
Bottle fragments					
Lip/neck-machine finished					
Clear				2	2
Purple			1		1
Brown				1	1
Blue-green				1	1
Body					
Unmarked					
Clear		3	5	41	49
Purple			8	20	28
Green			11		11
Brown		2	5	28	35
Blue-green		2		93	95
Yellow				1	1
Molded/embossed					
Clear			1	1	2
Purple				1	1
Green				6	6
Blue-green				8	8
Base					
Mold marked/embossed					
Clear				2	2
Green				1	1
Milk glass-white					
Jar liner				5	5
Other				6	6
Hollowware-press molded			1		1
Glass stopper				1	1
Melted glass				1	1
METAL					
Wire nail		3	9	31	43
Staple			3	2	5
Nut			1		1
Shoe grommet			2		2
Screw			1	1	2
Barbed wire				6	6
Metal button				3	3
Bullet cartridge				1	1
Bolt				1	1
Unidentified		27	14	185	226
OTHER					
Plastic				3	3
Wood				4	4
Mother-of-pearl button	-	-	-	1	1
TOTAL	1	41	66	554	662

41 DN 100

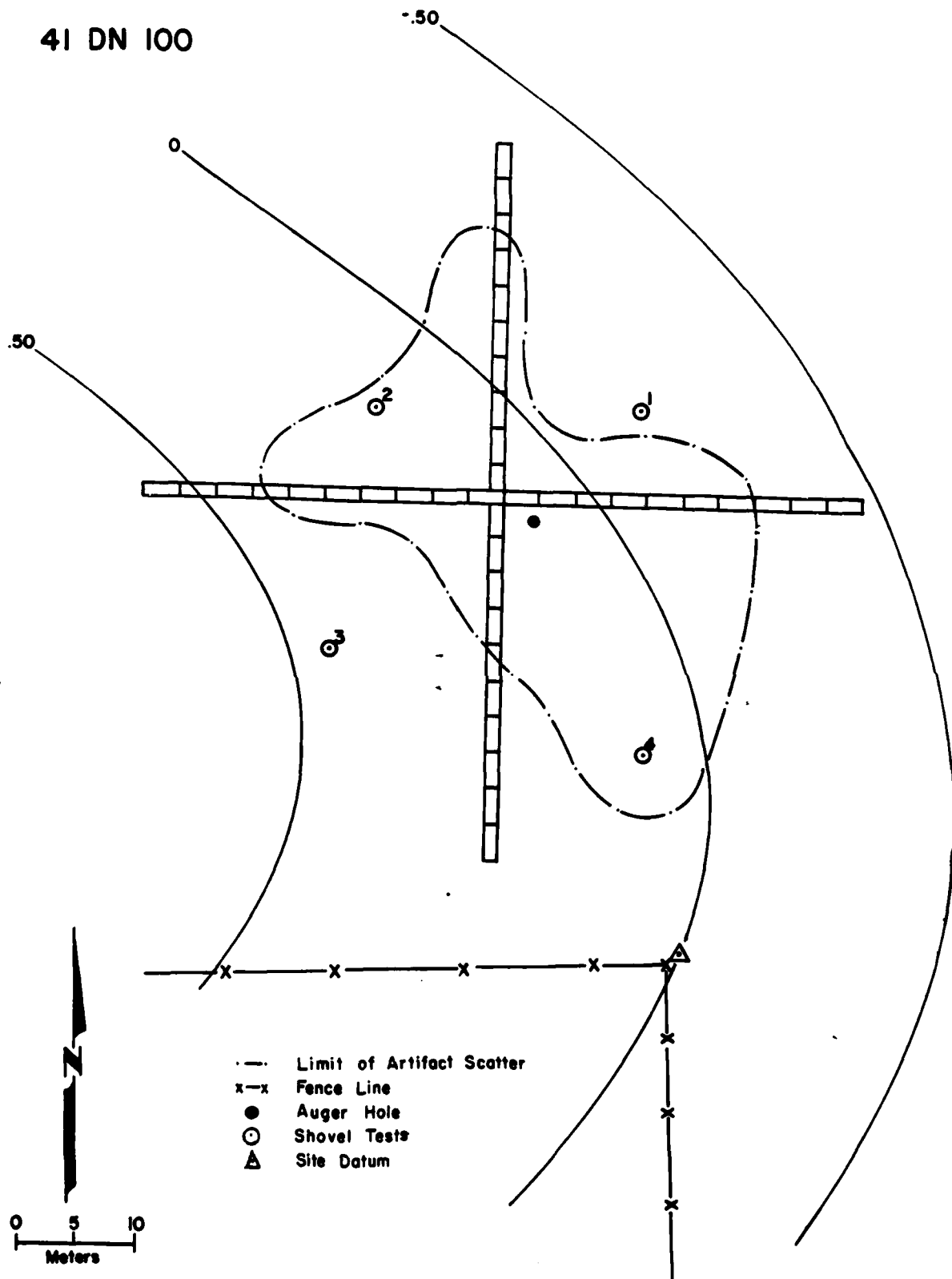


Figure 4-27. Contour map of historic site 41DN100, showing locations of test units.



This farmstead location appears on the 1917 soil survey map of Denton County; thus, 41DN100 is known to be at least that early. The location of the West Cemetery, very close by, with graves dating back to the 1870s, increases the likelihood that 41DN100 was pre-1900 in date. Prior to testing, it was believed likely that this site dated to the early facet of the Competition phase (1875-1935) of the Historical period in the area.

Testing and Artifacts

Subsurface investigations at this site included one deep auger test to a depth of 80 cm and four shovel tests to a depth of 40 cm. These tests failed to reveal the presence of any subsurface cultural deposits and no artifacts were recovered from any of the tests.

Following the augering and shovel testing, two perpendicular collection transects were placed through what was judged to be the center of the artifact scatter. Historic artifacts collected from the surface of 41DN100 include 10 ceramic sherds, 13 bottle glass fragments, 1 milk glass jar liner fragment, and 8 metal fragments. This site cannot be given a temporal assignment based on the artifacts because they are non-diagnostic. These include clear bottle glass, blue glaze stoneware, plain/undecorated white paste earthenware, and cast iron sheets.

Summary

Site 41DN100 is a scatter of historic artifacts which shows no evidence of any depth. No features were observed. No additional work is recommended for this site.

41DN104

Site 41DN104 is a scatter of historic artifacts located in a plowed field on the T1 terrace at an elevation of about 186 m. The site is located 0.5 km north of a small intermittent drainage, and 2.58 km west of the Elm Fork of the Trinity River.

The site consists of a large surface scatter of historic household artifacts including bottle glass, earthenware, crockery, milk glass, decorated ceramics, shoe soles, fragments of a plastic toy dog, unidentifiable metal fragments, and a metal chair leg. A concentration of limestone slabs and cobbles was noted in the northeast corner of the site in an area which has not been plowed and may be the remains of a structure (Figure 4-28). The densest concentration of artifacts within the scatter also occurs in the northeast section of the site, but encompasses a larger region than does the concentration of limestone rock. The existence of plastic among the artifacts suggests a late occupation, but the predominance of older glass and earthenware artifacts possibly indicates occupation over a long period of time.

In connection with this, the area of 41DN104 is not shown as being occupied by a farmstead on the 1917 Denton County map. This would tend to reinforce the view that 41DN104 is post-1920 or later in date.

The area of the artifact scatter covers about 2.06 ha and is 160 m north-to-south by 170 m east-to-west. The site is a dark, grey-black, Wilson clay loam.

Testing Results and Artifacts

Subsurface testing at this site involved a series of five auger tests which were placed across the northern part of the site. Two of these were located within the densest area of surface artifacts. No subsurface material was found in any of these auger holes,

41 DN 104

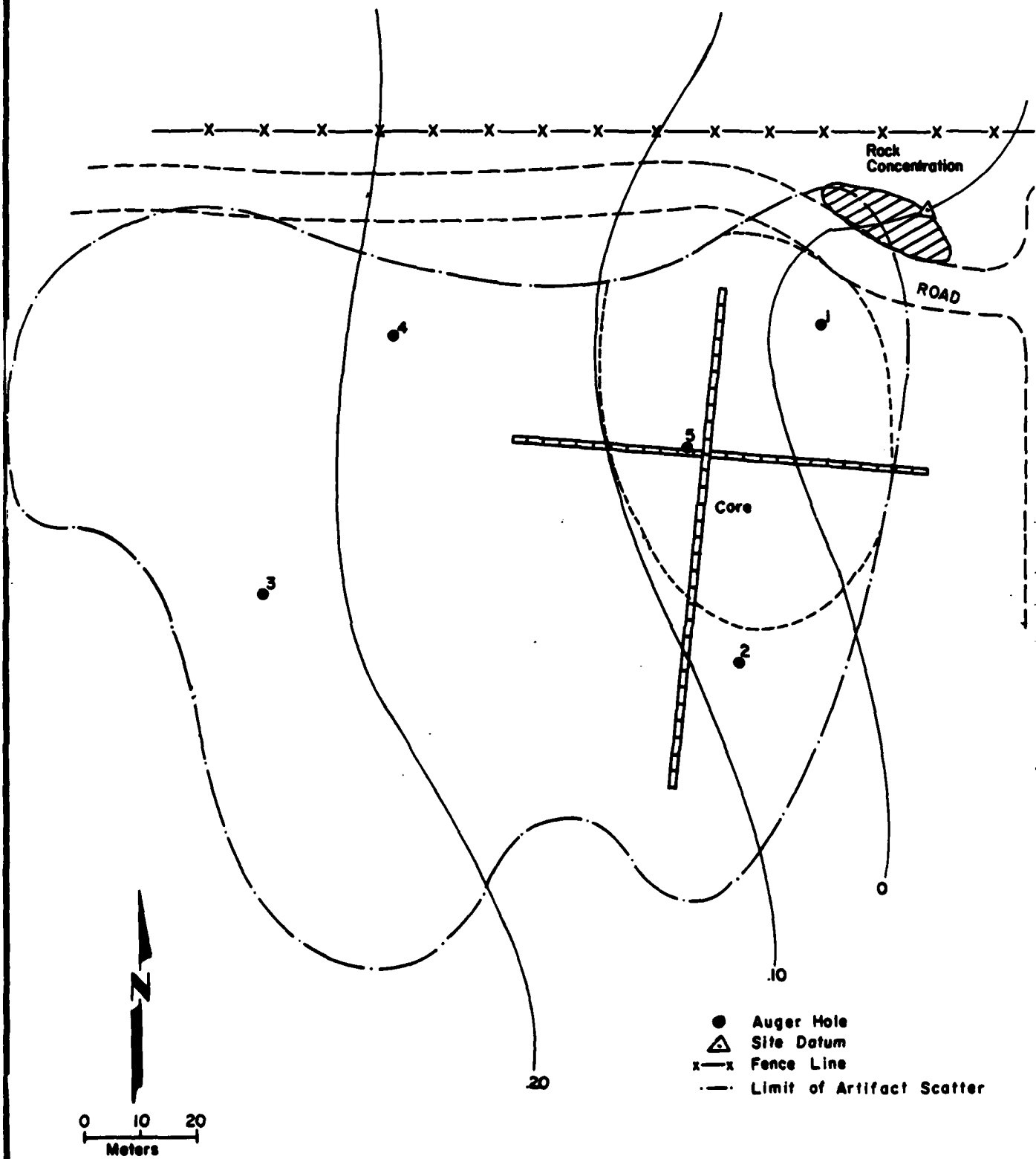


Figure 4-28. Contour map of historic site 41DN104, showing locations of test units.



with the exception of Auger Hole 1. This test yielded glass fragments to a depth of at least 40 cm. Auger Holes 1 to 4 were excavated to a depth of 40 cm, and Auger Hole 5 was excavated to a depth of 100 cm.

Following completion of the auger testing of this site, two collection transects were laid out across what was believed to be the area of greatest artifact density. The north-south collection line was 90 m long, and the east-west line was 75 m long. Surface artifact visibility was extremely poor, and only five artifacts could be located within the core area.

Historic artifacts collected from 41DN104 include one earthenware sherd, seven glass fragments, one metal piece, and one rubber shoe heel. The artifacts from this site do not indicate a time period other than relatively recent. These artifacts are one dark brown unmarked bottle base, five clear body fragments, one tumbler fragment, and one mold decorated, white past earthenware sherd with an annular green band.

Summary

Site 41DN104 is a sparse historic artifact scatter with little depth. The site has been heavily disturbed by plowing and no features are present. No additional work is recommended.

41DN105

Site 41DN105 is an historic artifact scatter presumably associated with a house. It is located on the northeast side of a rise on the T1 terrace at about 180 m elevation. The site is located 2.7 km west of the Elm Fork of the Trinity River and 0.6 km south of a small intermittent drainage which flows eastward into the Elm Fork.

The site is defined by a large surface scatter of historic household artifacts including glass, ceramics, crockery, brick, and unidentifiable metal fragments. A major portion of the site exists in a plowed field with the remainder in a pasture. The observed artifact density was higher in the plowed field due to better ground visibility and increased ground disturbance. No surface manifestation of a structure was observed by the survey crew.

The site covers an area of approximately 0.73 ha and measures about 73 m north-to-south by 125 m east-to-west and is orangish-brown Navo clay loam. 41DN105 initially was estimated as being post-1900 in date, and its location on the 1917 Denton County map supports this interpretation.

Testing Results and Artifacts

Sursurface evaluation of the site is based on one deep auger hole and five shallower shovel tests (Figure 4-29). The only subsurface artifactual material was recovered in the upper 60 cm of the auger test, and top 20 cm of Shovel Test 5. The auger test was excavated to a depth of 80 cm, and the shovel tests were excavated to a depth of 40 cm.

In addition to the subsurface examination, 41DN105 also was collected using two perpendicular collection transects. The north-south transect was 60 m long, and the east-west transect was 90 m long.

41 DN 105

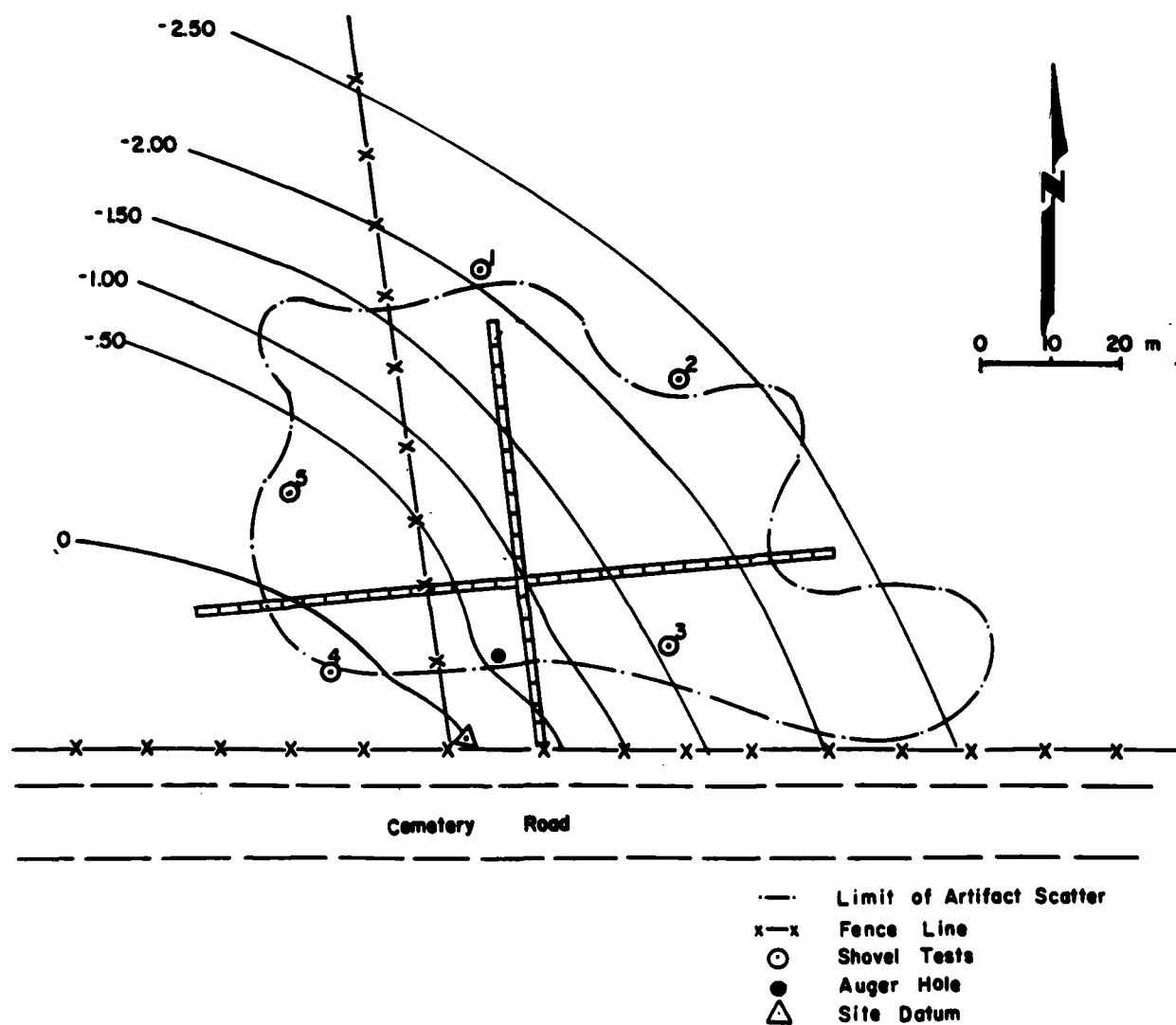


Figure 4-29. Contour map of historic site 41DN105, showing locations of test units.



Historic artifacts collected from 41DN105 included 15 ceramic sherds, 15 glass fragments, and 4 metal pieces. The artifact assemblage present here contains components generally found in sites spanning the 1800s to the 1930s. Stoneware ceramics include one Bristol/glaze sherd. Of the earthenware sherds, three are blue transfer print (one is flow blue), one is sponge decorated, one is mold decorated, one is brown slipped, one is a buff salt glaze/Albany slip fragment, and one has a blue glaze exterior. The other ceramics consist of plain, undecorated, white paste earthenware and one plain and one mold decorated poreclain sherd. The bottle glass fragments are clear, blue-green, and brown body pieces. One milk glass jar liner was present. The metal artifacts are wire nail fragments and a bolt fragment.

Summary

Site 41DN105 is a moderately dense historic artifact scatter. A small portion of the site shows some depth. The bulk of the site has been disturbed by plowing. No additional work is recommended for this site.

41DN106

Site 41DN106 is a complex of historic standing structures consisting of a main house, a log barn with additions, and an outbuilding (Figure 4-30). The site is located 1.9 km north of FM 455, 1.0 km east of Johnson Branch, and 1.0 km west of Isle du Bois Creek.

The main house is a multi-room L-shaped structure with a front porch. The barn is both log and plank. The original log section is roughhewn with V notches. Vertical plank sections have been added to the north and south sides. Planks also have been added to the top of the crib to give it additional height. A steep gable peak is centered over the crib with a more shallow pitch roof to either side of the peak. Roofing material is corrugated metal. The barn is in good condition and still used for hay storage.

Testing Results and Artifacts

Subsurface testing of 41DN106 consisted of six shovel tests. All were to a depth between 20 and 30 cm. Cultural material was recovered in all tests except Test 6. The 19 artifacts collected included three white paste earthenware sherds (two plain, undecorated and one decalcomania), six bottle body fragments (three clear, two green, and one brown), one purple mold-marked/embossed bottle base fragment, three window glass fragments, three square nails, and one unidentified iron/steel fragment. Two pieces of tire tread also were recovered.

Summary

Site 41DN106 is a standing structure complex with a sparse artifact scatter. No subsurface features were recognized. Only recent material was observed. No additional work is recommended.

41DN107

Site 41DN107 is located 1.5 km north of FM 455, and 1.0 km west of Isle du Bois Creek. It is a complex of historic structures consisting of a house, two outbuildings, an outhouse, and a barn (Figure 4-31).

The main house is a multi-room T-shaped structure with a front porch. The easternmost building functioned as an animal pen and/or chicken coop. Like 41DN106,

41 DN 106

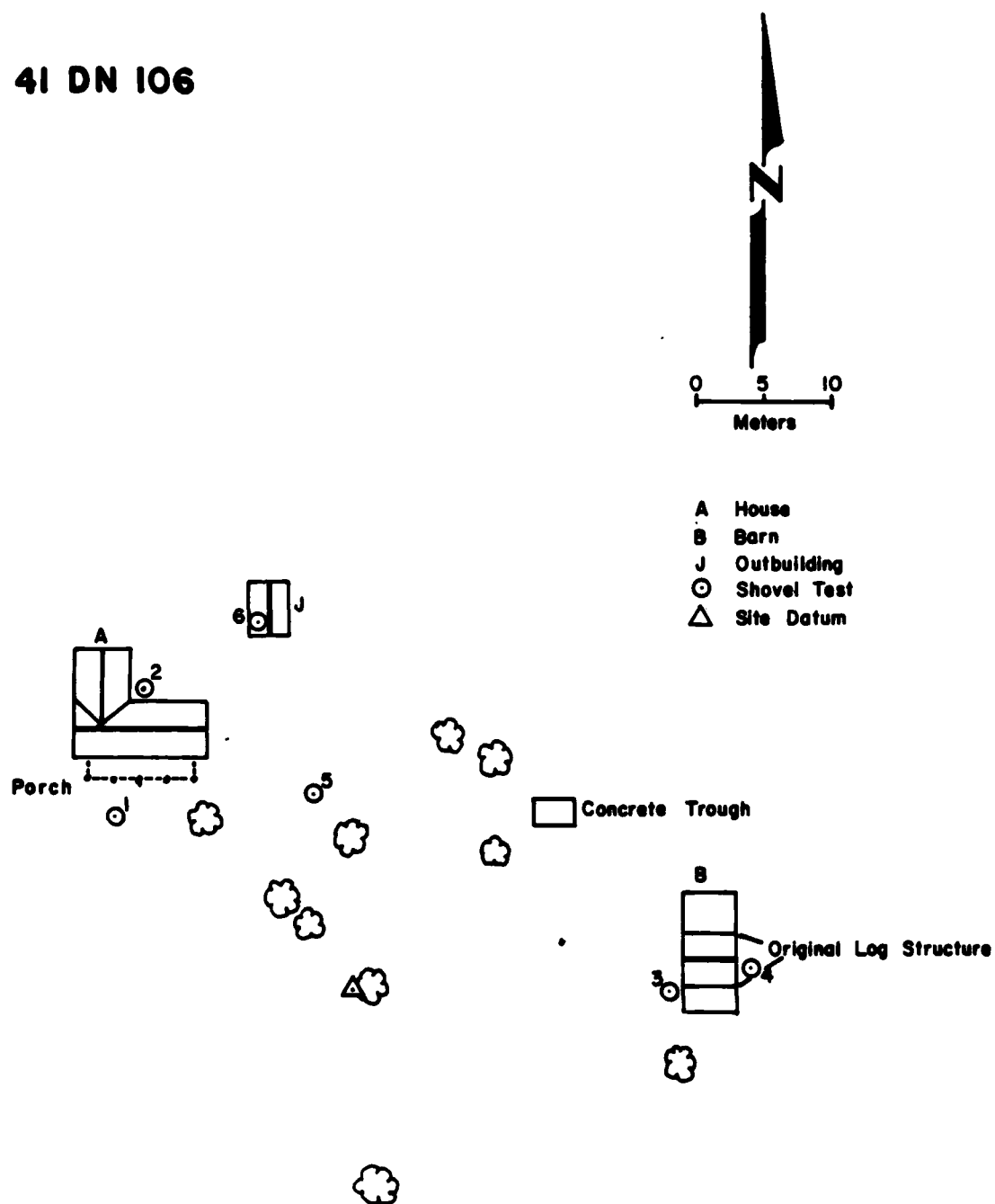


Figure 4-30. Plan map of historic site 41DN106.



41 DN 107

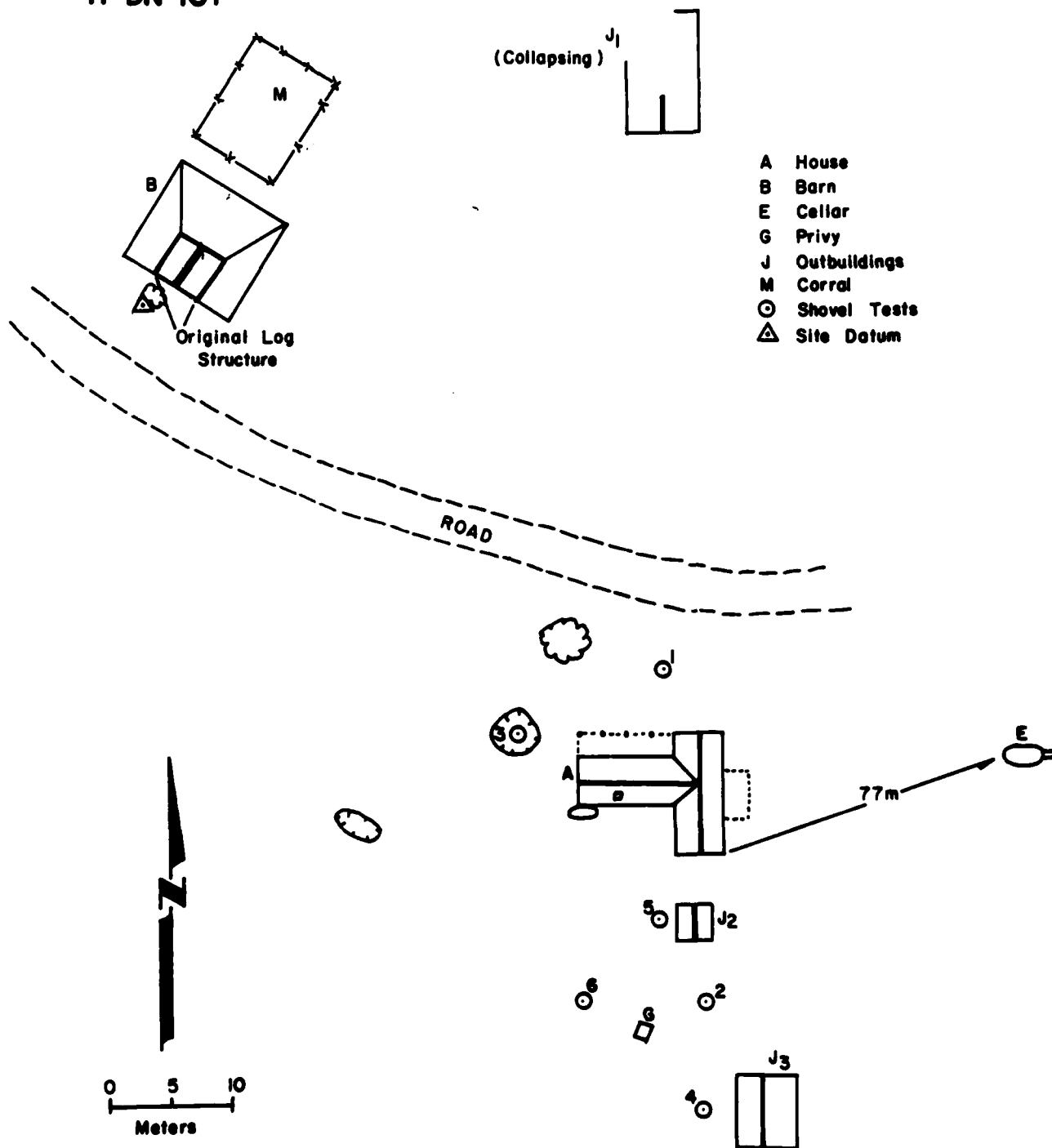


Figure 4-31. Plan map of historic site 41DN107.



the barn is both log and plank. The original log section is of roughhewn V-notched logs. A vertical plank section has been added to the southern end, and a pole shed has been added on the north. A steep gable peak is centered over the log section. The roof is of corrugated metal.

Testing Results and Artifacts

Subsurface testing of 41DN107 consisted of eight shovel tests. The deepest of any of these tests was 15 cm. A gravel deposit or bedrock was encountered close to the surface. Cultural material was recovered from Shovel Tests 3 and 6, the remainder were sterile. Fourteen of the 23 artifacts collected were glass bottle fragments (8 clear, 4 green, and 2 brown). In addition, three white paste earthenware sherds (two plain, undecorated and one blue transfer print), three wire nails, and one unidentified iron/steel fragment were collected. One unidentifiable whole jar with a lid and one mortar fragment also were recovered.

Summary

Site 41DN107 is a standing structure complex with no discernible artifact concentration. Collapsed root cellars were observed. No additional work is recommended.

41DN108

Site 41DN108 is an historic occupation site located on the edge of the T1 terrace at about 183 m elevation. The site is situated 2.3 km due west of the Elm Fork of the Trinity River and 0.4 km south of an intermittent drainage which flows eastward into the Elm Fork.

The site consists of a widespread surface scatter of historic artifacts including large quantities of broken glass, earthenware (both plain white and decorated types), crockery, and unidentifiable metal fragments. No apparent concentrations of artifacts were noted on the site at the time the site was recorded, but during testing operations, two areas of denser surface artifacts were distinguished (Figure 4-32). One of these was on the southeast margin of the site, and the other was on the southwest. A well, constructed of limestone slabs and cobbles, was located along an east-west fenceline to the northwest of the artifact scatter. To the north of the well in a pasture is the remains of a fallen barn with a corrugated sheet metal roof. Some old horse-drawn farm machinery was observed north of the artifact scatter along the same fenceline as the well. The soil is a dark, grey-black, Navo clay loam. A majority of the site exists in a plowed field while the remainder is currently in pasture.

The site initially was evaluated as being post-1900 in date, and an occupied farmstead appears in this location on the 1917 map of Denton County. Prior to the testing at 41DN108, the site appeared to date to the latter facet of the Competition phase (1875 to 1935).

Historic Background

In 1869, John A. Mayfield obtained a patent on 240.67 ac containing the future location of site 41DN108 (Patent, C:151). By 1875, 195 ac of the original tract belonged to M.A. Brittain, who sold it in that year to J.S. McKinney (W.D., 32:289). McKinney died about 8 years later, leaving the land to his heirs, G.H. and Louisa Dowlin. The Dowlins sold 194 ac (or their interest in the property) to S.A. McKinney, also a relative of J.S. McKinney, for \$400 in 1883 (W.D., 32:337). S.A. McKinney died in 1909, leaving the

41 DN 108

- Auger Hole
- Test Pit
- △ Site Datum

- Contour Interval in meters
- x-x-x Fence
- - - Limits of Surface Scatter

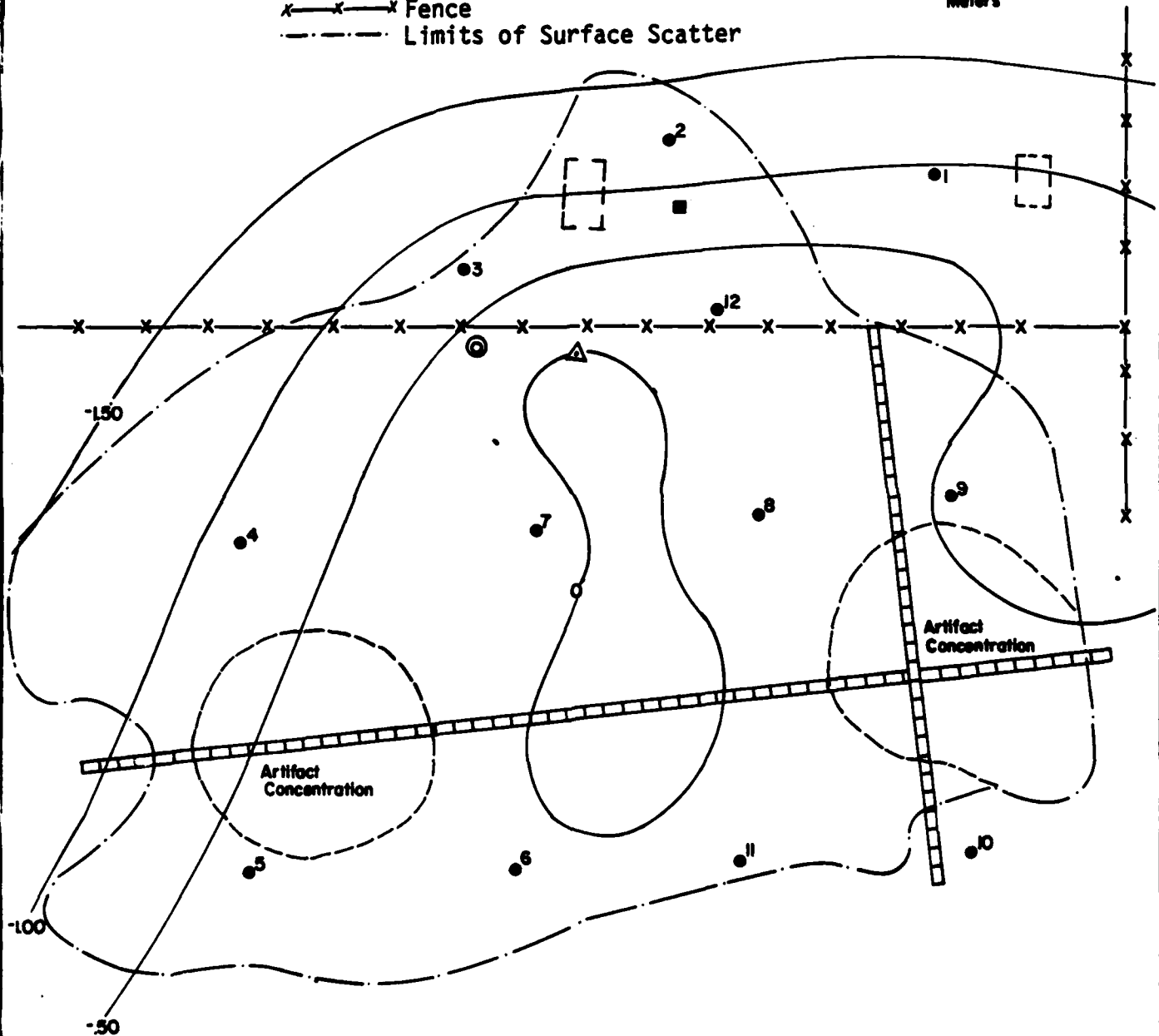
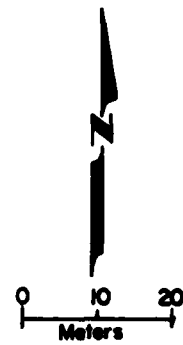


Figure 4-32. Contour map of historic site 41DN108, showing locations of test units.



property to his wife S.M. McKinney (Probate, #1369). When she died in 1924, she left it to her two daughters, the last of whom died in 1959. At that time, the property was passed to her nephew, C.L. Edwards, as S.M. McKinney has specified 50 years earlier.

According to local oral history, 41DN108 was the site of the McKinney farm. The site is of interest because it is a family-owned farm, in contrast to the tenant farmsteads which compose the majority of the historic archeological sites selected for further historical research. It is probable that the McKinneys were the only people to live on the site. It was not possible to fully document the history of this site. No informants were located who remembered enough about the structures once on the site to give a clear description of the farmstead.

Testing Results

Because of the relatively large surface area of 41DN108, 12 auger holes and 1 test unit were required to adequately evaluate the subsurface deposits on the site. Only Auger Holes 2 and 12 contained any subsurface artifactual material and, in both cases, material was confined to within 20 to 40 cm of the surface. Based on these results, there would seem to be a small amount of subsurface material in the pasture north of the fenceline. Auger Holes 1 to 11 were excavated to a depth of 40 cm, and Auger Hole 12 was excavated to a depth of 80 cm.

Test Unit 1 was excavated in 10 cm levels reaching a shallow depth of 30 cm below surface. Most of the artifacts were confined to the upper 20 cm. The unit was terminated after the western half of the unit was excavated to 30 cm. The matrix of Levels 1 and 2 consisted of very dark brown (10 YR 3/2) sandy loam, and the matrix of Level 3 consisted of very dark brown (10 YR 3/2) clay.

Subsequent to augering of the site, two collection transects were laid out through the portion of the site which was in the plowed field. The east-west transect was 165 m long and was placed so as to bisect both areas of high artifact density. The north-south transect was 90 m long and bisected the easternmost of the two concentrations. A total of 228 m² was covered south of the fenceline, and 295 artifacts were collected. This yields an average density of 1.29 artifacts per m², or 0.77 m² per artifact.

Artifacts

Historic artifacts from 41DN108 consisted of 346 items. These were recovered from surface collections, three auger holes and one excavation unit. Eighty percent of the artifacts were recovered from the controlled surface collection. In terms of the total assemblage, there are approximately 75 ceramics (22%), 198 glass fragments (57%), and 72 metal fragments (21%). The only other artifact was one piece of black slate. The artifacts are listed in Table 4-9.

The historic artifacts indicate that the site was occupied from the 1850s through present times. Two decorated ceramic sherds can be dated as pre-1870. These are a blue shell-feather edge sherd and a hand-painted, white paste earthenware sherd. Other artifacts providing a pre-1900 through early 1900s time frame are miscellaneous purple bottle fragments and slip/glaze stoneware sherds. Additional artifacts include foodstuff jar rims, tableware, window plate glass, milk glass jar liner, colored glass, porcelain, slip/glaze earthenware, and clear glazed stoneware.

Table 4-9.
Historic artifacts recovered: #1DN108

Type	Surface	Augering	Test Unit 1	Total
CERAMIC				
Earthenware				
Plain decoration	30	2		32
Plain dec. with maker's mark	1			1
Mold decorated	4		1	5
Blue shell-feather edge	1			1
Blue transfer print	1			1
Annular banded	1			1
Gilded	1			1
Painted	2			2
Mold decorated/painted	1			1
Decalcomania/molded	1			1
Slip/Glaze	6	1		7
Yellow glaze	1			1
Stoneware				
Albany slipped	4		1	5
Albany/Glaze	7		2	9
Albany/lead glaze	1			1
Albany slipped interior with salt glaze exterior	1			1
Clear glaze			1	1
Unidentified slip/Glaze			1	1
Porcelain				
Plain decoration	1			1
Decalcomania	1			1
Brick fragments	1			1
GLASS				
Bottle fragments				
Lip/neck-machine finished				
Clear	2			2
Purple	2			2
Blue	1			1
Body				
Unmarked				
Clear	92		4	96
Purple	13			13
Green	23			23
Blue	2			2
Brown	6			6
Blue-green	14		1	15
Pink	3			3
Molded/embossed				
Clear	10			10
Purple	3			3
Base				
Unmarked				
Clear	2			2
Green	1			1
Brown	1			1
Mold marked/embossed				
Clear	1			1
Purple	1			1
Brown	1			1
Blue-green	1			1
Milk glass				
White				
Jar liner	6			6
Other	4			4
Blue-other	1			1
Hollowware-press molded	3			3

Table 4-9. (Cont.)

Type	Surface	Augering	Test Unit 1	Total
METAL				
Wire nail	6		1	7
Square nail	1		7	8
Wire	1			1
Bolt with hook and eye	1			1
Barbed wire	2		2	4
Handle	1			1
Shoe grommet			1	1
Unidentified	5		44	49
OTHER				
Black slate	<u>1</u>	<u>—</u>	<u>—</u>	<u>1</u>
TOTAL	277	3	66	346

Summary

Site 41DN108 is a heavy scatter of artifacts which has been disturbed by plowing. Features include two collapsed structures and a well. The northern portion of the site has some depth. It is recommended that 41DN108 be comprehensively surface collected to gain a more thorough understanding of the regional chronology and settlement history.

41DN109

Site 41DN109 is an historic artifact scatter located at the crest of a T2 terrace at an elevation of about 183 m. The site is situated just inside a turn in Cemetery Road, 1.0 km north of FM 2153, and 2.3 km west of the Elm Fork of the Trinity River.

The site consists of a surface scatter of historic artifacts, primarily of household utility goods such as broken glass, earthenware, cut nails, and crockery. It is situated on Navo clay loam in a plowed field. Because of extensive plowing, the artifacts are dispersed and any potential surface features may have been destroyed. The site covers an area of 0.4 ha and extends about 50 m north-to-south, and about 114 m east-to-west (Figure 4-33).

Testing Results

Subsurface testing at 41DN109 consisted of five auger holes placed across the site. No artifacts were recovered in any of the auger holes and all reached a depth of at least 29 cm.

Summary

Site 41DN109 is a moderately dense historic artifact scatter. The entire site has been plowed and the site has no depth. No subsurface features were discerned. No additional work is recommended for this site.

41 DN 109

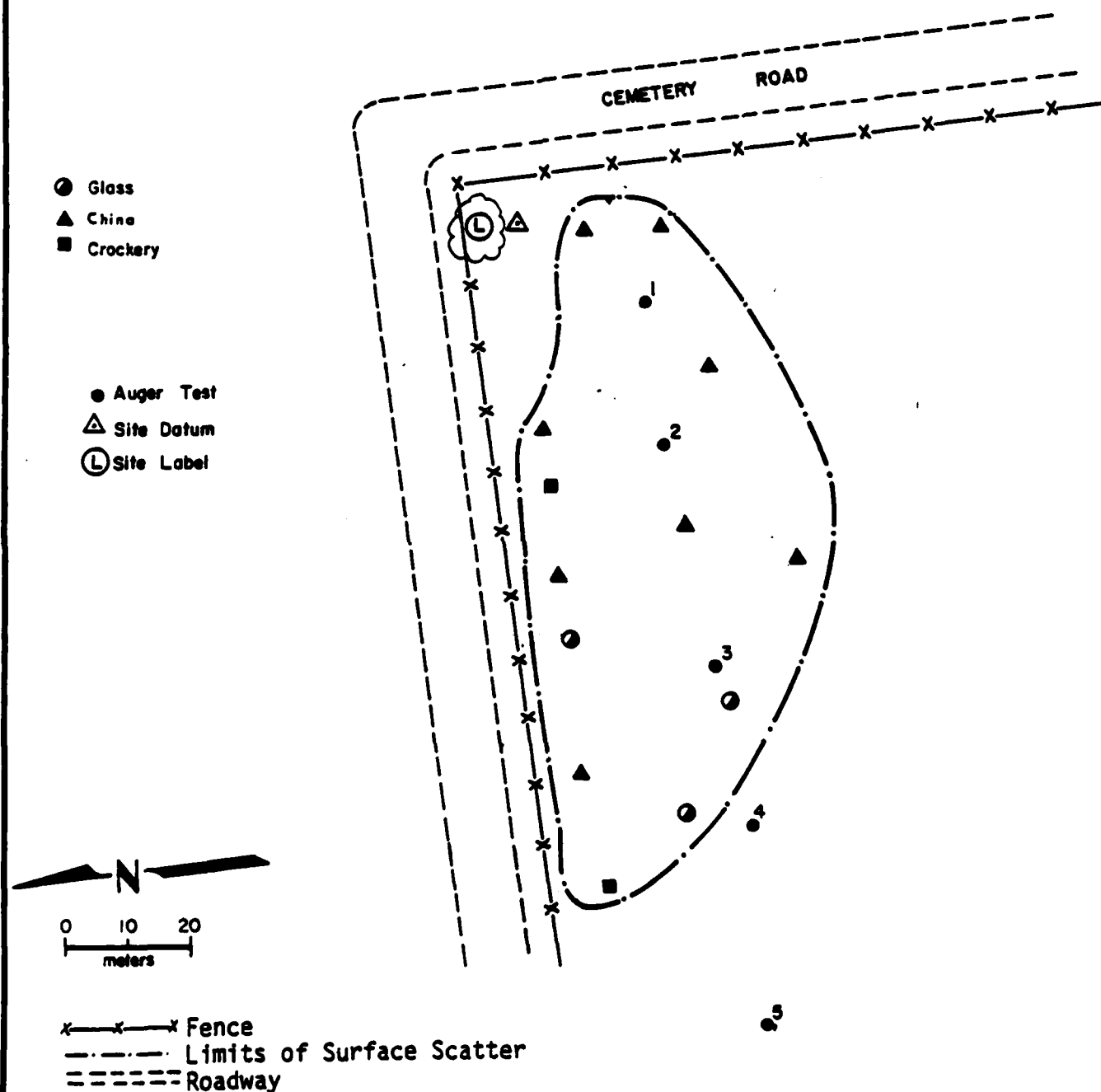
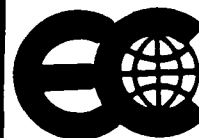


Figure 4-33. Plan map of historic site 41DN109.



41DN110

Site 41DN110 is an historic house location situated in the center of the T1 terrace at an elevation of 186 m. The site is located 3.0 km west of the elm Fork of the Trinity River, and 0.8 km north of a small intermittent drainage which flows eastward into the Elm Fork.

The site consists of a house foundation, two cellars, and a well (Figure 4-34). A scatter of historic artifacts was noted in association with the foundation, well, and cellars. This scatter included bottle necks, broken bottle glass, white ceramic sherds, farm tools, and decorated earthenware. A metal shoe-rest from a shoe-shine kit also was noted at the site. The cellars were both located between 5 and 10 m to the southwest of the house foundation. The well is situated approximately 18 m to the north of the house foundation. The size of the site including the artifact scatter is about 0.12 ha, measuring 50 m north-to-south by 33 m east-to-west.

The soil is Wilson clay loam. Disturbance to the site appears to be minimal because a majority of the structure foundation is still intact. A fence bisects the site but does not appear to have resulted in an adverse impact on any of the site's features.

Prior to testing, too little was known about this site to assign it even a tentative date. The survey crew failed to find sufficient diagnostic artifactual material to assign a date, and the site is not on the 1917 Denton County map. This probably indicates that the site was occupied after 1917, but how much after is unknown.

Historic Background

Site 41DN110 was originally a part of an 878-ac tract of land patented by William A. Thompson in 1848 (Patent, A:241). The description of the tract at that time characterizes it as "prairie." His heirs sold the entire tract to Matthew Cartwright in 1857 for \$1,000 (W.D., A:275). In 1862, Cartwright sold 44.5 ac of the tract, but apparently retained the remaining portion (W.D., R:389). The chain-of-title then jumps rather mysteriously to 1902, when M.E. Jackson sold 280 ac (in two tracts) to Sam. A. Harrington for \$7,700 (W.D., 81:336); Harrington sold it later that year to Warren B. Clements for what he paid for it (W.D., 85:332). Clements was evidently a large landowner in the area, because in 1908 he mortgaged 926.67 ac in four tracts, including the 250-ac tract containing site 41DN110 (D.T., 36:464). Clements' land speculation was not entirely successful, however, because the mortgage firm acquired the land in 1913 and sold it to J.H. Bowman for assumption of Clements' debt (W.D., 146:532). From 1919 through 1941, the record is confusing; there appear to have been at least two mortgages and defaults during that period. J.P. Elkins and J.M. Wilfong, mentioned as grantors in the transactions (D.T., 61:111) and 64:374), may have been owners of the property during this period or may have assumed payment on Bowman's contract.

The Wilfong name appears in mortgage deed transactions as early as 1920 (W.D., 64:374) and again in 1923 (W.D., 78:522). The next recorded transaction occurs in 1937, when the property was sold at auction and was purchased by the mortgage holder, John Hancock Mutual Life Insurance. The property is still known in the oral tradition as the Wilfong Place, although the Wilfongs never actually resided there. According to C.D. Allen (interview, 1-16-81), the Wilfongs lived in Sanger and rented the property to a family named Hardwick. It was during the Hardwick tenure on the land that the four-room tenant house was built during the 1920s or early 1930s by some people that rented from the Hardwicks. In 1941, the mortgage holder sold the 150+-ac tract to Lonnie H. Mosely for \$12,637 (W.D., 294:199). He resold it 10 years later for \$25,000 in cash and

41 DN 110

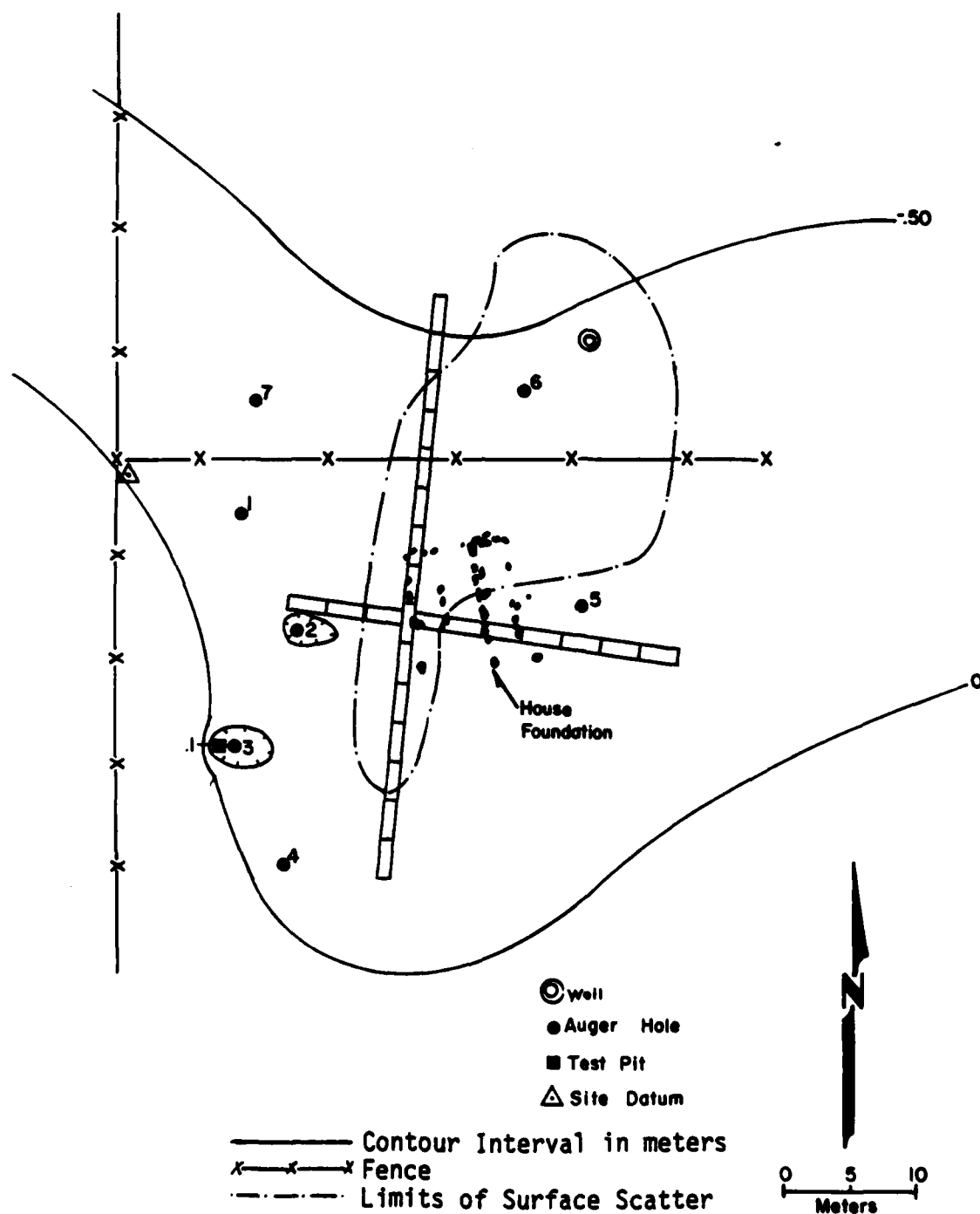


Figure 4-34. Contour map of historic site 41DN110, showing locations of test units.



41 DN 110 - Test Unit 1
WEST Wall

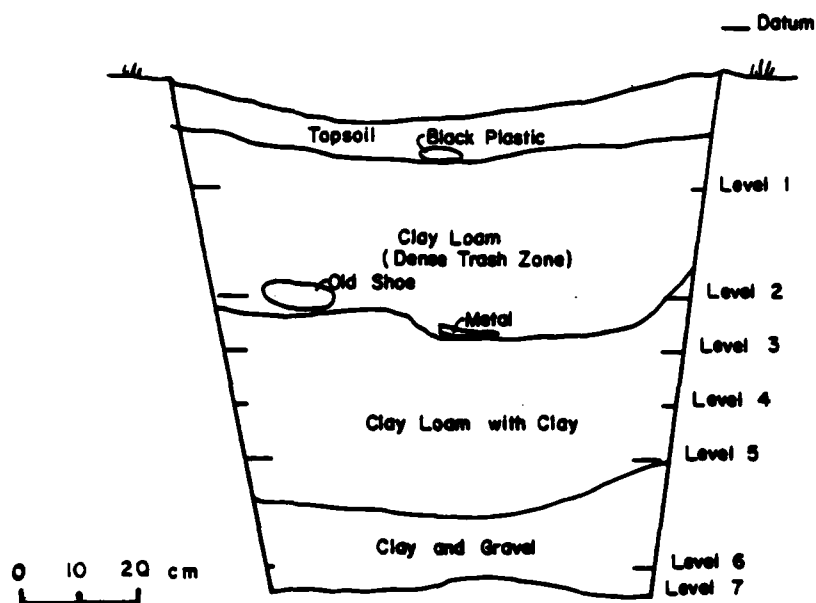


Figure 4-35. Western profile of Test Unit 1, 41DN110.

41DN111

Site 41DN111 is the location of an historic occupation site situated on the edge of the T2 terrace at an elevation of 195 m. The site is located 1.75 km due south of Pond Creek which flows eastward into the Elm Fork of the Trinity River, and 3.8 km due west of the Elm Fork.

The site consists of the apparent remains of a structure, a well lined with limestone slabs and cobbles, and an associated artifact scatter of broken glass, crockery, earthenware, unidentifiable metal fragments, and the remains of a pitchfork. The well is situated roughly 10 m due east of where a thin scatter of bricks delineate the possible location of the structure (Figure 4-36). Artifacts exist in concentrations largely to the south and to the east of the structure location and well. In addition, two trees which line up in an east-west direction exist in very close proximity to the structure, indicating that they were used possibly for decorative or aesthetic purposes. The artifact scatter covers an area of 0.53 ha and extends 108 m east-to-west and 75 m north-to-south. The soil is a brown Ponder loam with little apparent erosion or disturbance.

The site is situated south of an old roadbed which comes south from FM 455, turns a right angle, and then runs west to join FM 455 again. This old road may be located on the 1917 map of Denton County, but no farmstead is shown located where 41DN111 is today. The survey crew gave a preliminary date of post-1900 to this site, and the above evidence would seem to place it as post-1920.

land to Ben Stringfellow; at that time the tract was resurveyed and found to be 199+ ac (W.D., 377:34). After Stringfellow's death about 1959, it was deeded to his daughter (W.D., 459:376), who sold the property 4 years later in 1963 (W.D., 495:475).

Testing Results

Subsurface testing at this site involved the excavation of seven auger holes and one test excavation. Two of these auger holes were placed in the two cellars to the west of the structure foundation, and the other five were scattered randomly around the site. Both of the tests in the two cellars revealed the presence of subsurface material. Auger Hole 2, in the northern of the two cellars, contained cultural material to a depth of at least 40 cm, at which point a large fragment of metal prevented the auger from going deeper. Auger Hole 3, in the southern cellar, contained cultural remains to 90 cm before hitting impenetrable gravel. The presence of charcoal and evidence of firing at the base of this auger hole possibly indicates that this second cellar burned at some point.

The other auger holes revealed little depth to 41DN110. Auger Holes 1 and 5 both revealed artifactual material within 20 cm of the surface, but the bulk of the tests were sterile. It should also be noted that Auger Holes 4, 5, and 7 revealed the presence of a dense gravel layer, apparently from 20 to 30 cm below the surface in the southeast portion of the site, to at least 40 cm below the surface in the northwest.

Test Unit 1 was placed in the southernmost cellar because of the results of the auger test there. The 1 x 1 m unit was excavated in arbitrary 10 and 20 cm levels, to the floor of the cellar at 110 cm below datum. The stratigraphy associated with Test Unit 1 is presented in Appendix 4. The west profile of Test Unit 1 is presented in Figure 4-35.

Following completion of the testing at 41DN110, two collection transects were laid out which crossed just west of the structure foundation. The north-south transect was 45 m long, while the east-west transect was 30 m long. Artifacts collected from these transects are described in the following subsection.

Artifacts

The historic artifact assemblage recovered from 41DN110 consists of 3,168 items. Many more unidentifiable metal fragments were observed but not counted or collected.

The collection made from 41DN110 included 82 ceramic sherds, 725 glass fragments, and 2,155 metal fragments. Of this sample, only two historic artifacts could provide a date previous to the 1930s. These are a flow blue transfer print sherd, and a hand-painted, white paste earthenware sherd. The remainder of the artifacts are post-1900 and are presently in use. These include clear glass bottle fragments, window plate glass, press-molded tableware, tumbler fragments, wire nails, and barbed wire fragments. The artifact inventory is presented in Table 4-10.

Summary

Site 41DN10 is a sparse historic artifact scatter in a relatively undisturbed pasture. Features include a stone foundation, two root cellars, and a well. The site does have some depth outside the features. A site such as 41DN110 with good archaeological potential in this part of the project area should be investigated further to gain a more thorough understanding of regional settlement growth and chronology.

Table 4-10.
Historic artifacts recovered: 41DN110

Type	Surface	Augering	Test Unit 1	Total
CERAMIC				
Earthenware				
Plain decoration	2	2	23	27
Mold decorated		2	3	5
Flow blue transfer print		1		1
Decalcomania		1		1
Painted		3		3
Mold dec./painted			18	18
Albany/Glaze		1		1
Bristol/Glaze	4			4
Tin glaze			1	1
Colored glaze	1		3	4
Green glaze/molded			3	3
Stoneware				
Albany/Glaze			6	6
Porcelain-plumbing		2		2
Brick fragments			6	6
GLASS				
Bottle fragments				
Lip/neck				
Machine-finished				
Clear	1	2	15	18
Blue-green			4	4
Selenium decolorized			5	5
Unidentified				
Clear			3	3
Body				
Unmarked				
Clear	11	39	219	289
Purple			3	3
Green		12	4	16
Blue	1			1
Brown		2	27	29
Blue-green	2	1	13	16
Selenium decolorized			11	11
Yellow		1	39	40
Red glass over clear glass			1	1
Molded/embossed				
Clear	3	20	11	34
Base				
Unmarked				
Clear			25	25
Brown			5	5
Selenium decolorized			4	4
Yellow			1	1
Mold marked/embossed				
Clear		8	7	15
Brown			2	2
Complete bottle				
Machine finished-ketchup			1	1
Milk glass-white				
Other	1	2	15	18
Tumbler-press molded		1	8	9
Hollowware				
Unmarked			1	1
Press molded		4	65	69
Plate-press molded			1	1
Chimney glass			15	15
Window plate glass			87	87
Eyeglass lens			2	2

Table 4-10. (Cont.)

Type	Surface	Augering	Test Unit 1	Total
METAL				
Wire nail		31	111	142
Square nail			37	37
Staple			2	2
Screw			1	1
Wire			400	400
Hinge		1		1
Complete can	1			1
Buckle		1	4	5
Barbed wire		4	203	207
Eyelets			6	6
Bolt			5	5
Rivet			4	4
Spring			3	3
Grommet			1	1
Bullet cartridge			2	2
Gold-plated eyeglass nose-piece			1	1
Ball bearing			1	1
Washer			2	2
Metal bar			3	3
Tubing			3	3
Bottle caps			4	4
Sieve-like cap			1	1
Stove fragment			1	1
Exhaust pipe			1	1
Metal strap			3	3
Cable fastener			1	1
Chain link			1	1
Piston ring fragment			1	1
Unidentified		76	1239	1315
OTHER				
Plastic			9	9
Rubber		5	33	38
Leather		16	120	136
Tin foil		3		3
Mortar			1	1
Coal			1	1
Battery fragment			1	1
Lipstick tube			1	1
Shell earring			1	1
Plastic button			5	5
Shell button			4	4
Complete shoe			6	6
TOTAL	27	261	2880	3168

Testing Results

Subsurface testing at 41DN111 consisted of nine auger holes placed at various locations around the site and one excavation unit. Of the nine auger tests, four contained subsurface material. All four of these tests (Auger Holes 3, 4, 5, and 7) were located on the western half of the site, and would seem to indicate that this half of the site has some small degree of depth. Auger Holes 4 and 7 yielded material to a depth of only 20 cm, while both Auger Holes 3 and 5 revealed material down to a depth of 40 cm. Auger Hole 5, placed in the area of what was assumed to be a former structure location, revealed the presence of wood "slabs" at 40 cm below ground surface. The significance of these is unclear, but it seems possible that portions of a collapsed cellar roof may be preserved. This area is slightly depressed.

41 DN 111

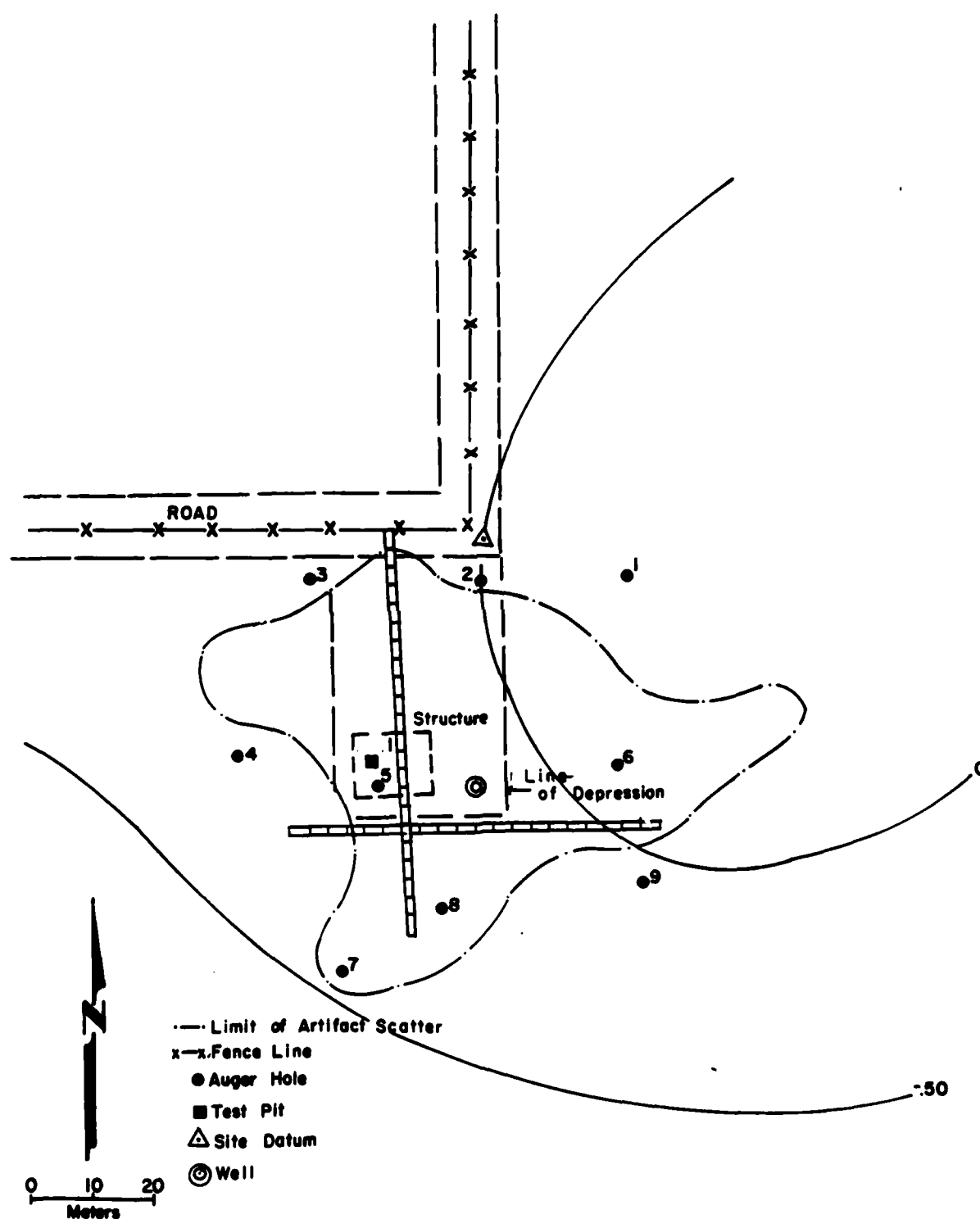


Figure 4-36. Contour map of historic site 41DN111, showing locations of test units.



Following the augering of this site, two collection transects were laid out to bisect what appeared to be the densest part of the site. The north-south transect was 66 m long, and the east-west transect was 60 m long.

Test Unit 1 was placed directly north of Auger Hole 5. Most of the artifacts collected were glass, earthenware, and metal. Charcoal and burned glass were also present, indicating that a fire had taken place. Level 5 was terminated after going down only 3 cm because of the sparse amount of artifacts in the upper portion and sterile soils were encountered thereafter. A description of the stratigraphy of Test Unit 1 is presented in Appendix 4.

Artifacts

The historic assemblage of 497 artifacts was recovered mainly from excavation (86%). The collection at 41DN111 resulted in an assemblage consisting of 68 ceramic fragments, 229 glass fragments, 174 metal pieces, and 26 artifacts of other materials. This sample contains historic artifacts which represent the era of the late 1800s to the early 1900s. Numerous pieces of purple bottle glass were found (the rim of one piece was machine finished). Household glass fragments include thick milk glass (cosmetic jars), ceramic tile, and hollowware. Ceramic artifacts include white paste earthenware (painted, transfer print, decalcomania, and slip/glaze), colored paste stoneware (slip and slip/glaze), plain, undecorated porcelain, and brick fragments. The metal assemblage is comprised of several pieces of hardware, tin can, parts of clothing fasteners, one gun cartridge, and several unidentifiable pieces. The artifact inventory is provided in Table 4-11.

Summary

Site 41DN111 is a moderately dense scatter of historic artifacts. Features include a well and a structure with a possible root cellar. About one half of the site, as defined by the limits of the scatter, has depth. A site such as 41DN111, with good archaeological potential in this part of the project area should be investigated further to gain a more thorough understanding of regional settlement growth and chronology.

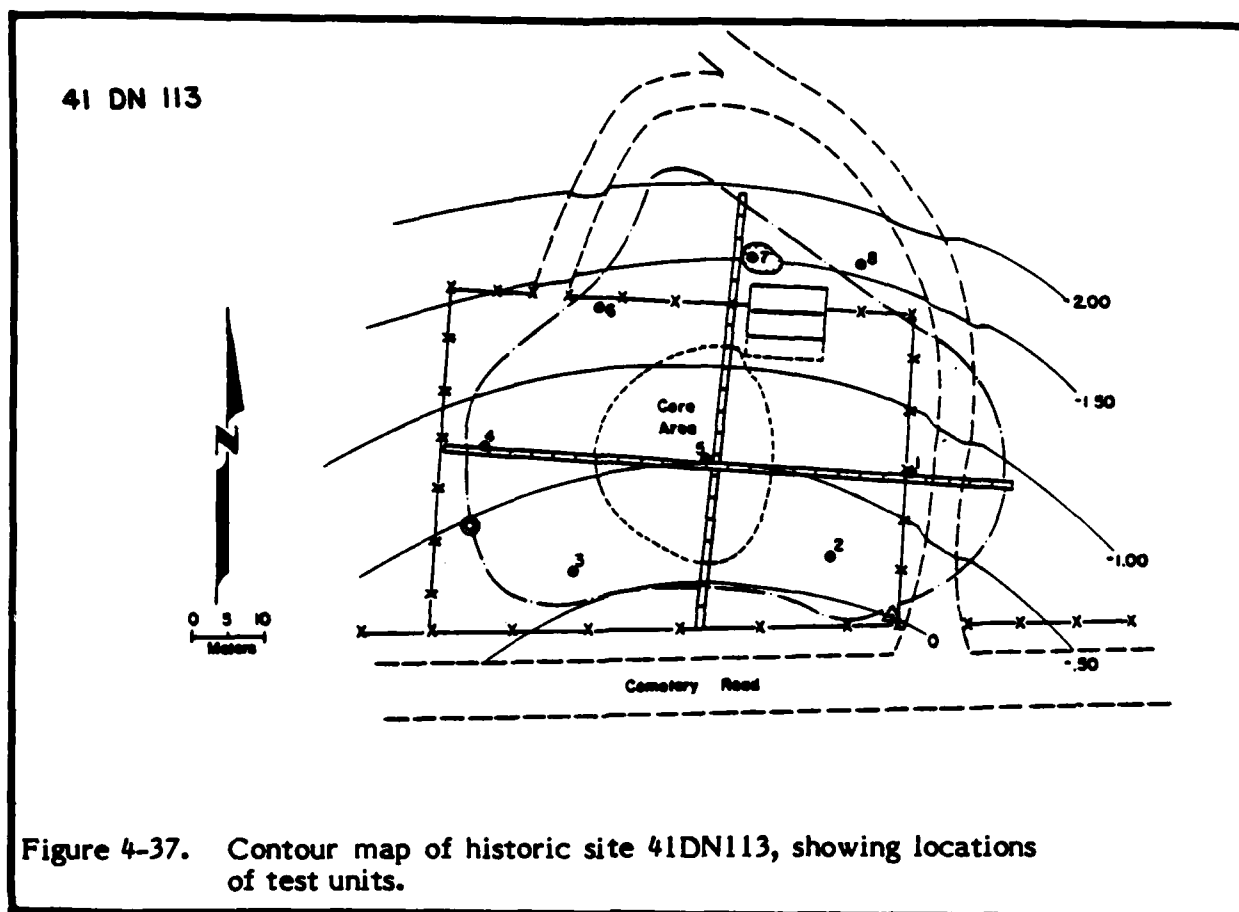
41DN113

Site 41DN113 is an historic occupation locale and standing structure which exists in the middle of the T1 terrace at an elevation of about 180 m. The site is located about 2.9 km west of the Elm Fork of the Trinity River and 0.15 km west of a small intermittent drainage that flows north and then east into the Elm Fork.

The site consists of a surface scatter of historic artifacts concentrated largely in a plowed field, but the artifacts also are present on all sides of an old standing structure (Figure 4-37). A well, lined with limestone slabs and cobbles, was located about 45 m southwest of this structure, and a collapsed cellar was found north of the structure. The artifact scatter consists of broken glass, earthenware crockery, white milk glass, unidentifiable metal fragments, door hinges, and iron stove fragments. The densest concentration of artifacts was noted in the central portion of the plowed field south of the standing structure (labeled the Core Area on Figure 4-37). The scatter covers an area of about 0.41 ha and measures about 65 m north-to-south by about 80 m east-to-west.

Table 4-11.
Historic artifacts recovered: 41DN111

Type	Surface	Augering	Test Unit 1	Total
CERAMIC				
Earthenware				
Plain decorated	2	13	20	35
Mold decorated			7	7
Painted	1			1
Polychrome transfer			2	2
Decalcomania			2	2
Bristol/Glaze	4			4
Stoneware				
Bristol slip	1			1
Bristol/Glaze		1		1
Porcelain				
Plain decoration			2	2
Brick fragments	3		4	7
Tile			6	6
GLASS				
Bottle fragments				
Lip/neck-machine finished				
Clear		1		1
Purple	1			1
Blue-green	1			1
Body				
Unmarked				
Clear	7	1	73	81
Purple	2		9	11
Green			70	70
Brown	2		8	10
Blue-green	3		28	31
Molded/embossed				
Clear	3	1	2	6
Purple	2		3	5
Blue			1	1
Base				
Mold marked/embossed-clear	1			1
Complete bottle				
ABM-unidentified-clear	1			1
Milk glass				
White				
Jar liner			1	1
Other	3		4	7
Hollowware-unmarked			1	1
METAL				
Wire nail			83	83
Square nail			4	4
Staple			3	3
Screw			1	1
Wire			38	38
Barbed wire			1	1
Tin can			3	3
Screw eye			1	1
Bullet cartridge			1	1
Unidentified	6		33	39
OTHER				
Rubber	8		12	20
Leather	4			4
Concrete	—	—	2	2
TOTAL	55	17	425	497



The standing structure on the site is a single-pen house, sided in weatherboarding and in only fair condition. It has a metal three-crimp roof. Already severely vandalized, it is currently used for hay storage.

The site is situated on a brown Wilson clay loam, and the portion of the site which falls within the plowed land probably has been disturbed to some degree. The portions of the site which fall outside this area appeared to be relatively undisturbed, although a farm access road and a fence have been built on the site.

Prior to testing, 41DN113 was believed to be post-1900 in date with a possible earlier historic component of unknown date. The survey crew had been informed by the landowner, Mr. C.E. Sadau, that the standing structure on the site had been constructed in the 1920s or 1930s, but that an earlier building had been on the site prior to that. The surface artifacts observed by the survey seemed to agree with the later occupation. The location was occupied by a farmstead on the 1917 Denton County map, and this was probably the earlier structure. Prior to testing, the date of this earlier occupation was unclear.

Testing Results

Subsurface testing of 41DN113 consisted of eight auger holes placed across the artifact scatter. The majority of the tests were sterile although Auger Holes 1, 2, and 3, along the southeast and southern margins of the site, did show some subsurface material. Material was found within the upper 20 cm in this area. Auger Hole 7 was placed in the cellar north of the standing structure and revealed artifacts within the upper 40 cm of

the test. Construction materials for the cellar were recovered to a depth of 80 cm. This construction material (decayed wood and loam with limestone inclusions) is assumed to be the collapsed roofing of the cellar. No evidence was found of artifactual material underlying the collapsed roof, which probably means that the cellar was abandoned and cleaned out prior to its collapse. The relatively well-preserved nature of the wood indicates that the cellar is associated with the later occupation of the site and is relatively recent.

Subsequent to the augering, a north-south and an east-west collection transect were laid out through the center of the artifact scatter. The north-south transect was 60 m long and the east-west transect was 78 m long. Within the 132 m² collected inside the limits of the artifact scatter, 83 artifacts were collected. This yields an average artifact density of 0.63 artifacts per m², or 1.59 m² per artifact.

Artifacts

The artifacts collected from 41DN113 include 22 ceramic sherds, 48 glass sherds, and 15 metal fragments. The archaeological assemblage present at this site has a beginning date of the pre-1930s. The artifacts found were a milk glass jar liner, pieces of clear and colored glass from bottle bodies and bases, white paste earthenware sherds, (10 plain, undecorated; 1 plain, undecorated, with a partial maker's mark; 2 mold decorated; and 1 sponge stamped), stoneware sherds (2 slip and 4 colored slip/glaze), 2 plain, undecorated porcelain sherds, wire nails, one whole mustard jar with metal lid, one bolt, and two pieces of rubber. The artifact inventory is presented in Table 4-12.

Summary

Site 41DN113 consists of an abandoned farm house, a collapsed root cellar, and a heavy artifact scatter. The scatter is largely in a plowed field and is thus disturbed, and has no depth. The artifacts are relatively recent. No additional work is recommended.

41DN116

Site 41DN116 is an historic occupation site located on the edge of T2 terrace at an elevation of about 184 m. The site is situated about 0.5 km due west of Isle du Bois Creek and 0.15 km south of a small intermittent drainage which flows east to Isle du Bois Creek.

The site consists of the apparent outline of a rectangular structure foundation. The outline is defined as a flat mound of dirt forming a rectangle (Figure 4-38). A scatter of historic artifacts is associated with the foundation, as well as an apparent cellar which was noted about 30 m to the northeast of the foundation. The artifacts observed at the site consist of broken bottle glass, window glass, earthenware, crockery, bricks, wire nails, and several unidentifiable metal fragments. Most of the artifacts exist in close association with the foundation, downslope and to the east and northeast. The site covers an area of 0.43 ha and extends about 55 m north-to-south and 90 m east-to-west.

The soil is a tan Navo clay loam. Some minor erosion has occurred which has presumably distributed some of the artifacts downslope.

This location is shown as a farmstead on the 1917 Denton County map, and the surface artifacts observed by the survey crew seemed to indicate a post-1900 occupation date

Table 4-12.
Historic artifacts recovered: 41DN113

Type	Surface	Augering	Total
CERAMIC			
Earthenware			
Plain decoration	9	1	10
Plain dec. with maker's mark	1		1
Mold decorated	2		2
Sponge stamped	1		1
Stoneware			
Albany slip	1	1	2
Albany/Glaze		1	1
Bristol/Glaze	3		3
Porcelain			
Plain decoration	1	1	2
GLASS			
Bottle fragments			
Body			
Unmarked			
Clear	14	3	17
Purple	5		5
Green	5		5
Brown	4	1	5
Blue-green	5		5
Molded/embossed			
Clear	2		2
Purple	1		1
Blue		1	1
Blue-green	1		1
Base			
Mold marked/embossed	4		4
Complete jar			
Foodstuff-ABM-clear	1		1
Milk glass			
White-jar liner	1		1
METAL			
Wire nail	5		5
Bolt	1		1
Unidentified	9		9
OTHER			
Rubber	<u>1</u>	<u>—</u>	<u>1</u>
TOTAL	77	9	86

41 DN 116

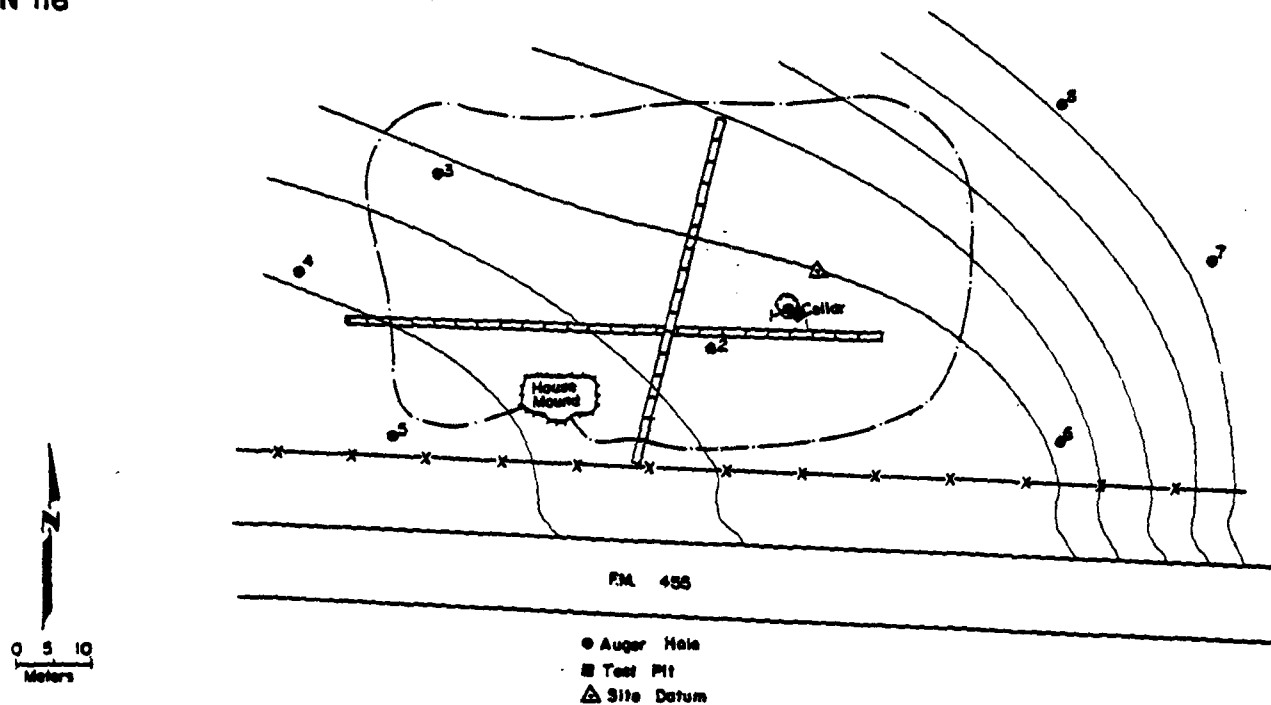


Figure 4-38. Contour map of historic site 41DN116, showing locations of test units.

41 DN 116 - TEST UNIT I
WEST WALL

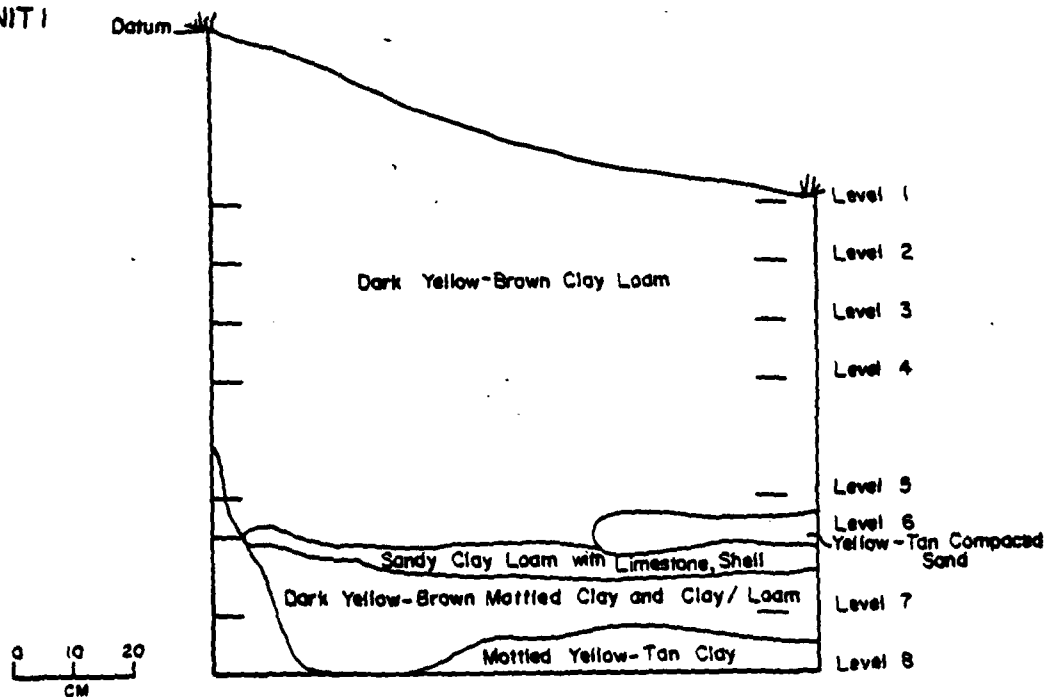


Figure 4-39. Western profile of Test Unit I, 41DN116.



for 41DN116. Based on this, it was assumed prior to testing that the site belonged to a late facet of the Competition phase (1875-1935).

Subsurface testing at 41DN116 consisted of one test excavation unit, seven auger holes placed across the site, and one auger hole placed in the cellar. Only two auger holes revealed any subsurface material on the site. The first of these was Auger Hole 1, placed in the cellar, which contained artifacts 40 cm below the surface. The presence of artifactual material in the cellar was no surprise, although the apparent shallowness of the artifact-bearing level is unusual. Auger Hole 5, on the southwestern margin of the site, also revealed subsurface material to 40 cm below surface. The matrix in this latter test hole differs from that of the others apparently because the soil in this area (and to the southwest) is Lindale clay loam, not Navo clay loam as elsewhere.

Test Unit 1 was placed in the cellar depression because of data collected from Auger Hole 1. It is a 1 x 1 m unit excavated in arbitrary levels to sterile dirt at 110 cm below datum. The stratigraphy associated with Test Unit 1 is presented in Appendix 4, and the west profile of the unit is presented in Figure 4-39.

Two transect collections were made through the central portion of the site. The first was roughly north-south and was 48 m long. The second measured 72 m long and generally was oriented east-west.

Artifacts

Material from 41DN116 was recovered by controlled surface collection, augering, and excavation. The assemblage totals 244 items, and the artifact inventory is presented in Table 4-13.

The historic artifacts present at this location indicate an occupation beginning approximately 1880. The 1880s are suggested by the presence of milk glass jar liner fragments and unidentified purple bottle fragments. There is not a terminal date for the site because other historic artifacts present occur from the 1880s to the present time.

Summary

Site 41DN116 is an historic artifact scatter associated with a structure outline and a root cellar depression. The site is in an uneroded pasture and appears relatively undisturbed. Secondary trash was recovered from the cellar. A site such as 41DN116 with good archaeological potential in this part of the project area should be investigated to gain a more thorough understanding of the regional chronology and settlement history.

41DN119

Site 41DN119 is an historic standing structures site consisting of two very small frame outbuildings. The site is in an upland pasture at an elevation of 195 m. The site is located west of Cosner Road, 0.5 km south of Simpson Road.

Testing Results

Subsurface testing at 41DN119 consisted of five shovel tests placed at various locations on the site area (Figure 4-40). Shovel Tests, 1, 2, 3 and 4 yielded artifacts while Test 5 was sterile. Except for Tests 3 and 5, all shovel tests reached a maximum depth of 20

Table 4-13.
Historic artifacts recovered: 41DN116

Type	Surface	Augering	Test Unit 1	Total
CERAMIC				
Earthenware				
Plain decoration	10		8	18
Mold decorated	4			4
Stoneware				
Majolica blue			1	1
Lead glaze exterior with white slip interior			1	1
Porcelain				
Plain	1		3	4
Gilded rim			1	1
GLASS				
Bottle fragments				
Lip/neck-unidentified				
Purple			1	1
Body				
Unmarked				
Clear	5	6	12	23
Green	2		7	9
Brown	1			1
Blue-green			2	2
Amethyst			2	2
Molded/embossed				
Clear		3		3
Base				
Mold marked/embossed				
Clear	2			2
Brown	1		2	3
Milk glass				
White jar liner	1			1
Tumbler-press molded	1			1
Hollowware-press molded	1	1		2
Window plate			13	13
Chimney			19	19
METAL				
Wire nails		3	10	13
Square nails			3	3
Screw			1	1
Wire			21	21
Can	1			1
Tire wrench	1			1
Barbed wire			5	5
Chain links			2	2
Unidentified tin			3	3
Piper strap			1	1
Bullet cartridge			1	1
Tin can seal			5	5
Unidentified	2	20	44	66
OTHER				
Rubber			2	2
Wood			9	9
TOTAL	33	33	178	244

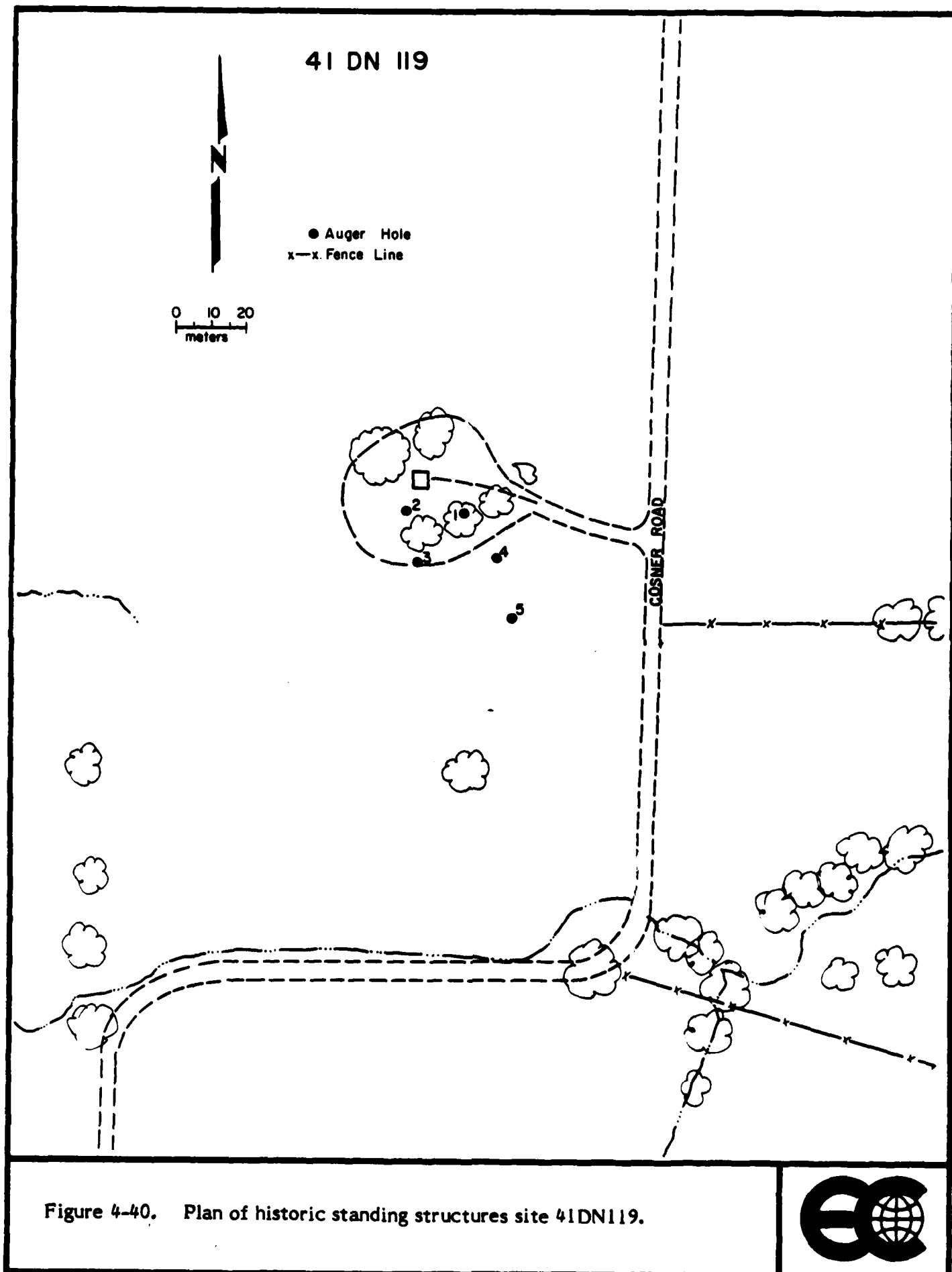


Figure 4-40. Plan of historic standing structures site 41DN119.



to 25 cm. Most of the artifacts collected consisted of various types of glass, ceramics and metal, although a fragment of bone was identified.

Summary

Site 41DN119 is an historic site with a collapsed structure and an outbuilding. There is no evidence for early occupation. No additional work is recommended.

41DN125

Site 41DN125 is an historic standing structures site. The site is adjacent to Simpson Road (on the north side of the road), and 0.45 km from Cosner Road. The site is located in an upland pasture at an elevation of 186 m. The primary structure on the site is a board-and-batten Cumberland house with rear lean-to and metal roof. Also standing on the site are several undistinguished frame outbuildings (Figure 4-41). Board-and-batten construction was most common in this area prior to the turn of the century and up to 1930.

Historic Background

The earliest reference in the deed records to site 41DN125 is in 1904, when W.J. Moore sold 200 ac to five members of the Simpson family (W.D., 88:456). Information about the site is limited due to illness of the informant on the day the interview was conducted. According to Bill (Simpson) Barker (interview, 1-18-80), however, the house on the site was built by Binkley Simpson in 1911 and originally was painted white. A barn, built prior to that time, was destroyed in 1912. Members of the family lived continuously in the house until the late 1950s or early 1960s. The chain-of-title on this property is confusing, but apparently the farmstead site stayed in the family until 1966, when 33+ ac containing the farmstead site were sold to Gerald E. and Eloise Stockard (W.D., 533:327, 329, 534:397 and 540:301). They sold it 4 months later to W.S. and Allene Burrows (W.D., 540:367), who sold it more than a year later to L.R. and Ruby Brown (W.D., 559:246). L. Roy Brown owned the property from 1967 to 1973 (W.D., 670:664). Sometime during this period, Brown remodeled the interior, adding paneling to the interior walls, and an addition on the back. The house has been modernized to include electricity and some modern fixtures.

The site also includes a corn crib and a chicken coop as well as a collapsed barn with an adjacent corral. The farmstead was the site of an early shingle mill.

Testing and Artifacts

Subsurface testing of 41DN125 consisted of four shovel tests, all to a depth of 30 cm. All of the tests produced cultural materials. Of the 33 historic artifacts collected, 6 are ceramic, 17 are glass, and 8 are metal. The ceramics include three earthenware (one plain, undecorated; one painted over mold decorated; and one mold decorated), two stoneware (colored slip/glaze), and one porcelain (mold decorated with a gilded edge). The glass fragments consisted of 14 bottle body fragments (clear, purple, colored, and one painted) and three window glass fragments. The metal pieces are one wire nail, one aluminum pop-top, and eight unidentified pieces.

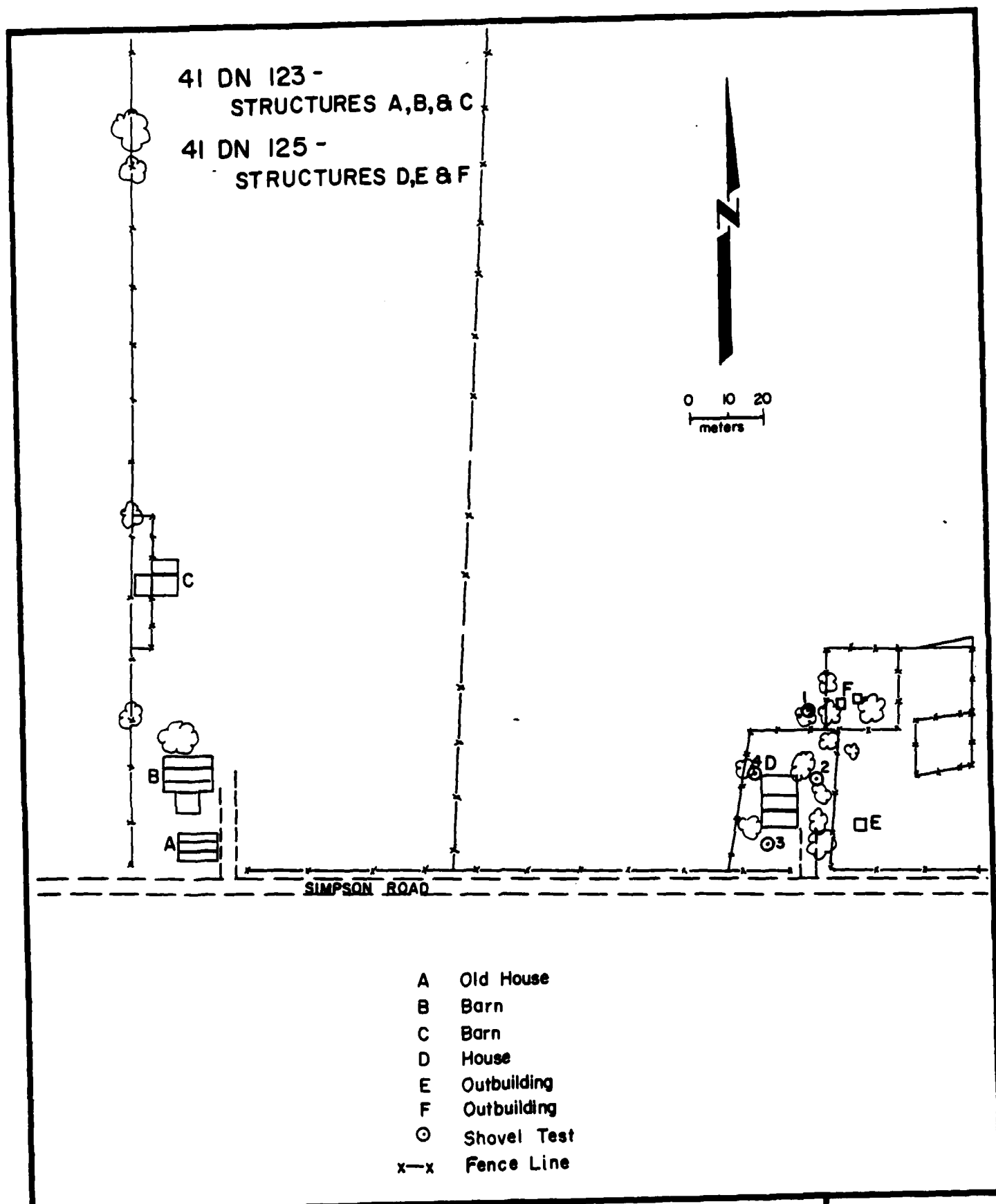


Figure 4-41. Plan of historic standing structures sites 41DN123 (A,B,C) and 41DN125 (D,E,F).



Summary

Site 41DN125 is an abandoned farmstead with collapsed outbuildings. No subsurface features were discerned. The occupation was relatively recent. No further work is recommended.

41DN126

Site 41DN126 is located approximately 1.7 km east of the FM 2164/Cemetery Road intersection, on Cemetery Road. It is 4.6 km west of the Elm Fork.

This is the location of the Sadau or Prairie Chapel School. The building has been moved north on the Sadau land and has been converted into a barn. The foundation is 17 by 10 m and is made of cement (Figure 4-42). The cement steps are present on the eastern side. The original school burned down and was rebuilt at the same location.

Historic Background

The 186.37 ac of land containing 41DN126 and 41DN118 was part of two original land patents from the State of Texas. One patent was granted to the heirs of Carmel Wetz Manchaca by Gov. Pease in 1856 (Patent Records, A:576-577), the other to Peyton R. Splaine by Gov. Lubbock in 1862 (Patent A:408).

In 1879, 5 ac of the Manchaca survey were deeded to the County Judge of Denton County by J.L. Trueheart and D.W. Heard of Bexar County for the sum of \$1. The land was to be used for a schoolhouse and for the use also of all "Christian denominations" as a place of religious worship (Patent L:340-341). This land became the site of the Prairie Chapel School (41DN126) which was to serve the people of the area for more than 50 years.

According to A.E. Sadau (interview, 1-15-81), the first school was a one-room, one-teacher school, built of cheap rough lumber. The school was destroyed by fire sometime before the turn of the century. The second building was a box-shaped structure, also one room, but of much better construction and materials. The exterior was painted white and the interior was blue. About 50 children attended the school in the early 1900s. By the 1920s, attendance had increased to more than 75 children and a second teacher was employed.

The second school apparently also burned and a third, larger school was built in the second decade of this century. It is this building that was bought and moved to the Sadau farmstead (site 41DN118) in the 1950s for use as a granary.

In 1900, V.G. Evans and his wife sold the 186.37 ac (less 5 ac on which the school was located) to G.A. and Lula Douglas for \$2,900 (D.T., 69:403). A mortgage was issued in 1905 by the British and American Mortgage Company, Ltd. of Great Britain and Ireland to George and G.E. Robertson for the entire tract of 181 ac. William Sadau purchased the land, assuming the mortgage from Mr. Robertson, in 1907 (Deed Records 7:486).

William Sadau and his wife, Minnie Coehn, were born and raised in Germany. They emigrated to Texas between 1882 and 1884, settling in north Denton County. Their four children were all born in Denton County on a farm that is now the site of the Denton Co-op. Minnie Sadau's parents came from Germany around the turn of the century and settled on a farm in north Denton County near the present Cauble Ranch.

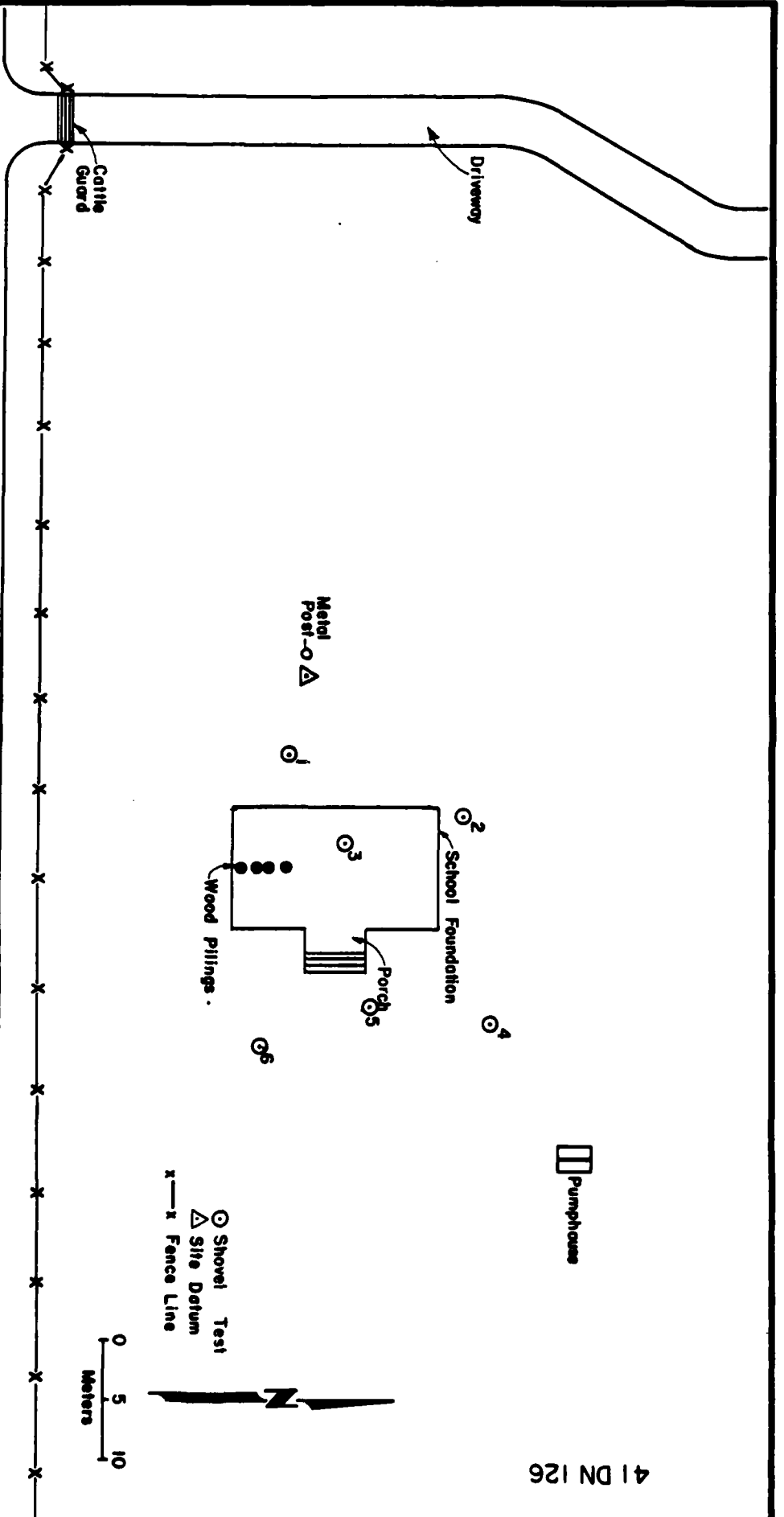


Figure 4-42. Plan of historic site 41DN126, Prairie Chapel School.



Adolf E. Sadau, son of William Sadau, was born in 1895 and began attending Prairie Chapel School in 1902. He had a much shorter walk to school after the family purchased the 181-ac farm north of the school. The family moved to site 41DN118 in 1908.

William Sadau died in 1912 and the farmland was divided, but the farm was kept intact until the children were grown. In 1937, A.E. Sadau bought the rest of the farm from his mother and siblings (W.D., 269:521). The old schoolhouse and property were acquired in the 1950s. A.E. Sadau married Elma Rippel in 1925 and they had three sons: Ernest in 1927, Carl in 1931, and Paul in 1940. In 1976, C.A. and Elma Sadau sold the entire 186.37 ac to their children for \$1.

The Sadau farmstead apparently was occupied for some time previous to 1908 because the house, a barn, and a smokehouse had already been built when they moved there. A house built of rock also was on the property. The Sadaus used the upper story of the rock house for a granary and the lower story as a chicken coop. A.E. Sadau says that there were four or five other houses on the place that the family moved or demolished for various purposes, indicating that the area had been much more populous at one time. The Sadaus never had any tenants on their farm.

The main house was built with square nails and lumber that, according to oral tradition, were hauled by oxen from Dallas. Mr. Sadau says that the house was old in 1908; if the lumber was hauled by oxen it probably predates his estimate of the late 1880s as the time of construction. Two rooms remain of the original structure. The house was altered in 1928 when a tenant house was moved and connected to the main house by building a middle room.

The root cellar predates the Sadau occupancy. It was rebuilt in the early 1900s because it caved in. The chicken and brooder houses were rebuilt and enlarged in 1928 after a tornado had destroyed them. The large barn was built as a dairy in the 1940s. The stock pond dates from 1925. Two sheds were added to the old schoolhouse and granary after its acquisition in the 1950s. William Sadau erected the windmill in the early 1900s after digging a new well to replace the old one that had run dry. The Sadau farmstead presents a near-complete farm complex as it evolved through the last quarter of the nineteenth century and the first half of the twentieth century.

Testing Results and Artifacts

Subsurface testing of 41DN126 consisted of six shovel tests. Cultural material was recovered from Tests 2, 5, and 7. Only four window glass fragments were collected from the site.

Summary

Site 41DN126 is an abandoned school foundation. The site has little depth, and the surface artifacts are scarce. No further work is recommended for this site.

41DN128

Site 41DN128 is an historic occupation site located approximately 75 m north of a dirt access road and 2 km northwest of the Davis Cemetery at an elevation of about 180 m.

The site consists of a house, garage, a cellar under the house, a trash pile, a small animal building, an LP gas tank, and two outbuildings (Figure 4-43). Historic cultural debris was observed around the site proper consisting of glass and some earthenware. An earlier house is believed to have stood on the site area, accounting for the cultural debris.

Testing Results

Subsurface testing at 41DN128 consisted of seven shovel tests placed at various locations on the site area. Shovel Tests 1, 3, 4, 5, and 6 yielded artifacts while 2, and 7 were sterile. All of the shovel tests reached a depth of 25 cm. The artifacts collected consisted of 3 plain, undecorated, white paste earthenware sherds, 19 bottle body fragments (5 clear, 6 green, 2 blue-green, 2 brown, 2 purple, 1 purple carnival, and 1 white milk glass), and 2 metal items (1 electric light bulb base and 1 wire nail).

Summary

Site 41DN128 is an abandoned farmstead with outbuildings. No subsurface features were discerned. No further work is recommended.

41DN129

Site 41DN129 is an historic standing structures site located north of Cemetery Road and 0.6 km south and 0.35 km west of Davis Cemetery. The farmstead is situated in a pasture at an elevation of about 180 m. The site consists of a house, a barn, and two small outbuildings associated with a corral.

The house is a hall and parlor frame, with a small back porch extending from the rear of the structure. The frame outbuildings are neither unusual nor particularly good examples of their type.

Historic Background

In 1903, Mrs. M.S. Bradshaw was paying taxes on 41DN129. Originally part of the Langston patent, the Bradshaws continued to pay taxes on the 181 ac until 1935, when the land was purchased by Fred and Mabel Cole. The Coles lived on this property for 30 years (F. Cole 1981: personal communication). According to Fred Cole, the original house was "very old." He remembers the walls being covered with newspapers dating back to 1878. The original structure was a two-room box house with an addition consisting of an eight-foot hall, an additional room, and a shed. The floor sills on the two-room box were hewn from oak logs. The floor joints were notched and wooden pegs were driven into the lap joints. The floor sills on the addition were made of 3" x 12"s with joints that were also notched and pegged. This original structure, Mr. Cole says, was destroyed in 1950 by a tornado. Mr. Cole rebuilt the house at the same location on a concrete slab.

Testing Results

When originally recorded, the house at 41DN129 was occupied by a renter, while the land was leased by a local farmer who was not cooperative with the survey team. At that time, the survey crew recorded the absence of any significant surface artifacts associated with this site.

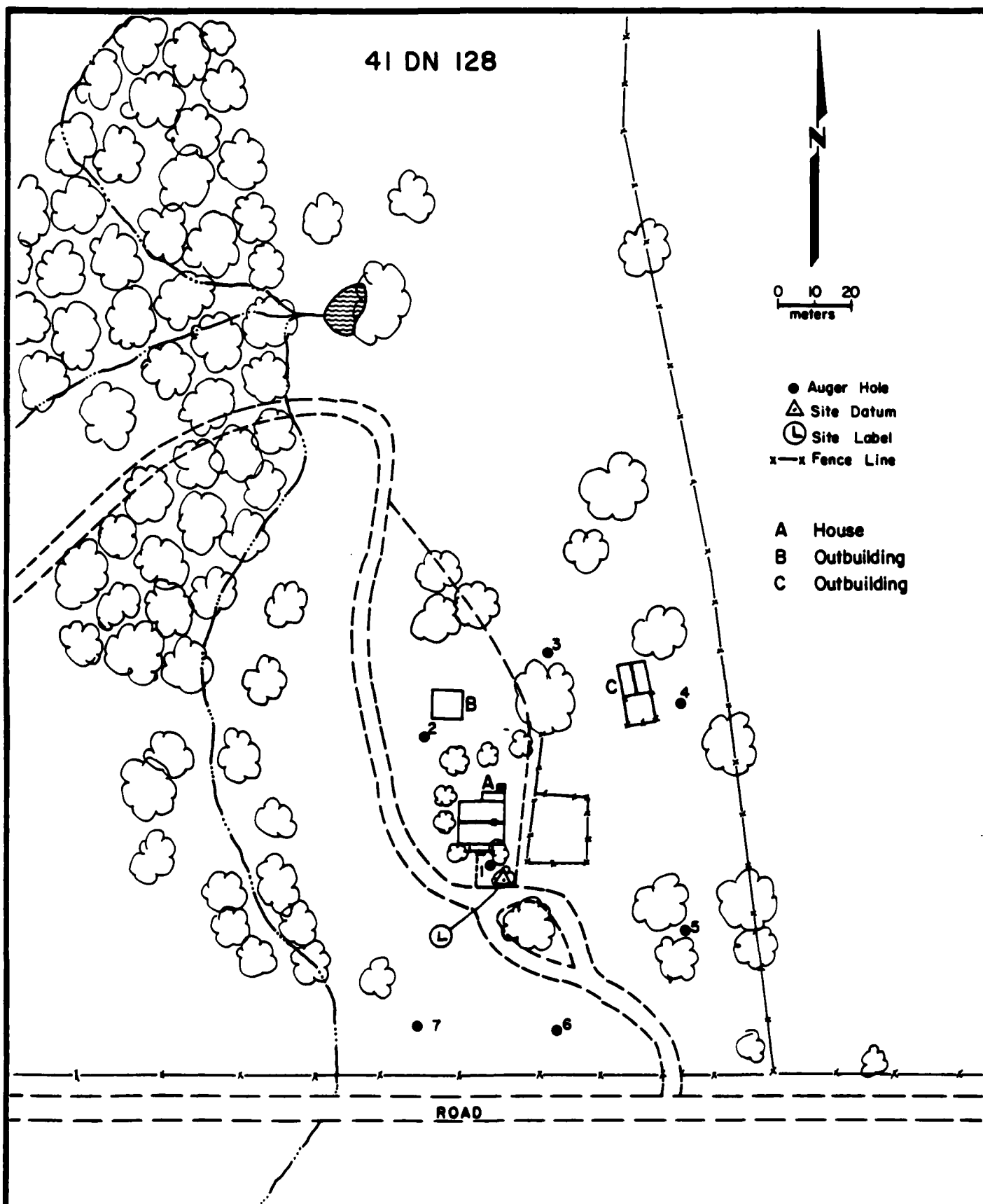


Figure 4-43. Plan of historic standing structures site 41DN128.



Because of the hostility of the lessee, the site was not revisited during the first phase of testing in the construction area, and it was uncertain whether it could be examined during the second phase. As a result, it was decided to expend a small amount of historic research time on the site to gain a better idea of its age and history. It already had been determined that the site was not architecturally outstanding, and the historical research was able to demonstrate that the house was not old, but that the site itself apparently was first occupied in the mid to late 1870s.

Summary

Site 41DN129 is a cluster of standing farm buildings which are deemed to be non-significant architecturally. The site apparently was first occupied in the 1870s, although no trace of this occupation could be found archaeologically during the short time that the field crew was allowed on the site. In consideration of the lack of preserved archaeological remains on the site, the non-significance of the architecture, and the large sample of better-preserved 1870s sites elsewhere in the construction area, it is recommended that no further work be done on 41DN129.

41DN132

Site 41DN132 is an historic standing structures site consisting of two early twentieth century houses, a barn, and a corral with small shed (Figure 4-44). The site is located 1 km north of highway 455, and 1.2 km southwest of the Elm Fork of the Trinity River at an elevation of 189 m. The main house is a typical, frame, three-room, double-pen Southern house with gable roof, front porch extending the length of the house, and rear porch beside the rear room which probably served historically as the kitchen. The smaller single-room house to the east may have been a tenant or hired hand's quarters.

Testing and Artifacts

Subsurface testing of 41DN132 consisted of seven shovel tests. These tests were placed at various locations within and around the three-building complex. Cultural material was recovered from all tests except 3 and 4. Only five artifacts were collected from the site. One hinge fragment, one buckle without the tongue, one brick fragment, and two pieces of bottle glass accounted for the entire inventory.

Summary

Site 41DN132 is a cluster of abandoned farm buildings with an associated artifact scatter. No subsurface features could be discerned. No further work is recommended.

41DN139

Site 41DN139 is an historic site with a standing structure located 0.2 km northeast of the Elm Fork of the Trinity River and 0.1 km north of FM 455 at an elevation of 183 m. The site consists of a frame outbuilding near a stock-watering pond (Figure 4-45). The building is an undistinguished example of mid-twentieth century agricultural structures in this area, but is atypical in its separation from the main farm complex.

Testing Results

Subsurface testing at 41DN139 consisted of four shovel tests positioned at various locations on the site area. The shovel test program produced no artifactual debris. Tests 1, 2, and 4 were excavated to a depth of 30 cm and Test 3 to a depth of 25 cm.

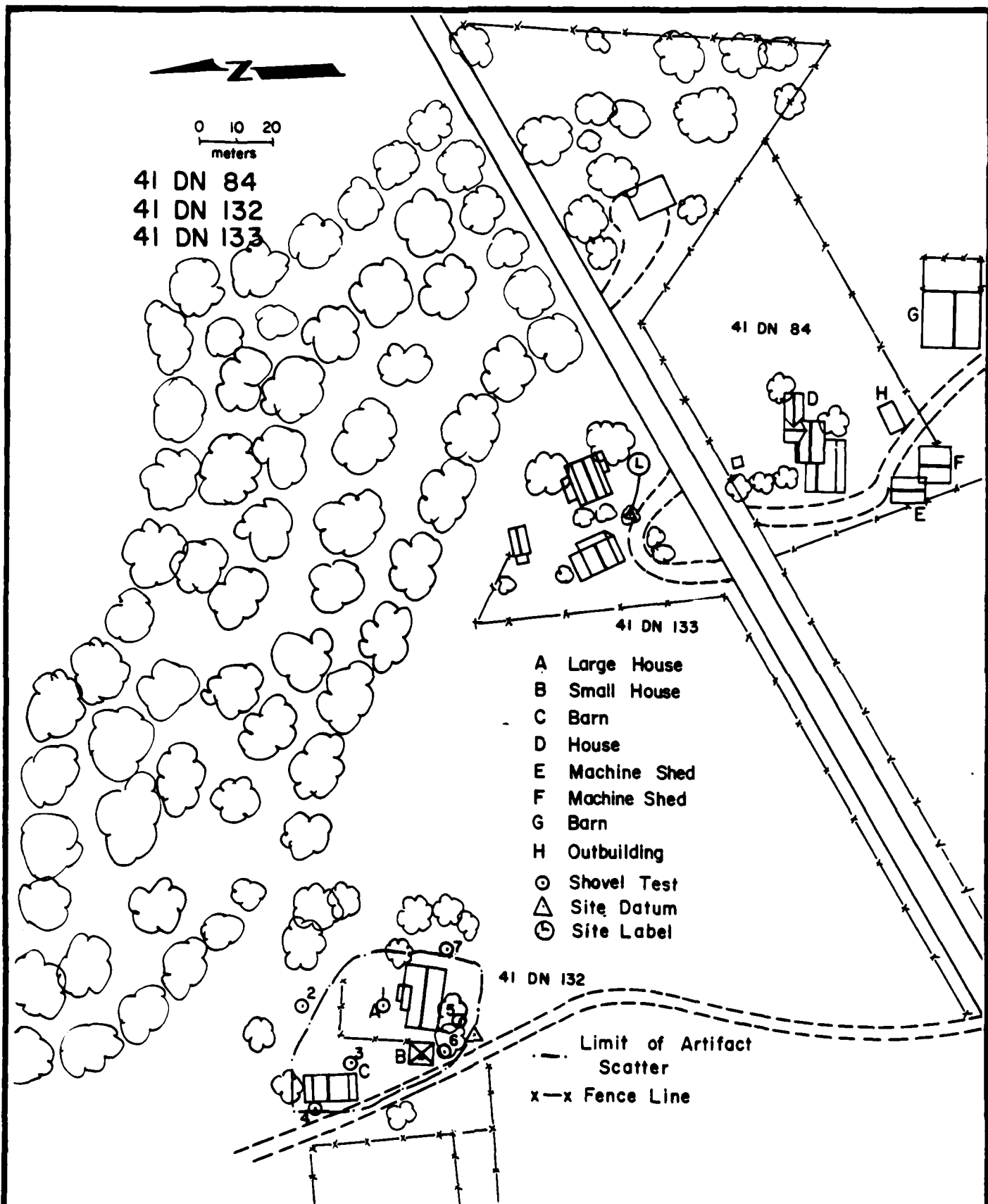
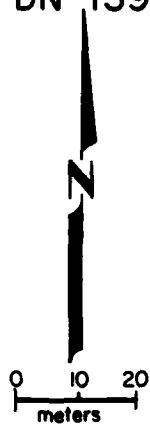


Figure 4-44. Plan of historic standing structures sites 41DN84, (D-G), 41DN132 (A-C), and 41DN133.



41 DN 139



- Auger Hole
- △ Site Datum

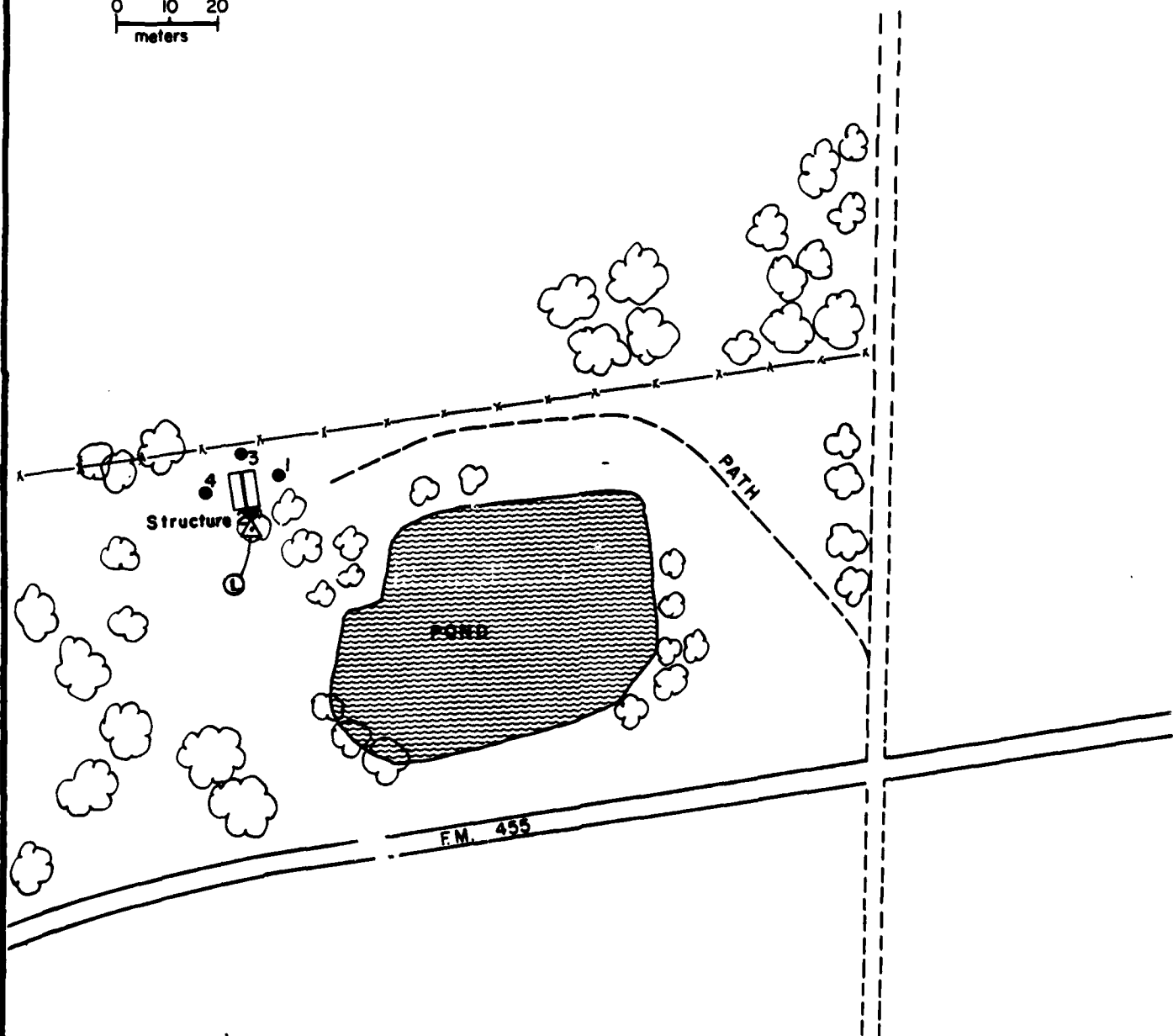


Figure 4-45. Plan of historic standing structures site 41DN139.



Summary

Site 41DN139 is an historic site with a single standing structure. No archaeological deposits could be located. No further work is recommended.

41DN143

Site 41DN143 is a log construction farmstead. The surface scatter of historic artifacts of unknown temporal placement is associated with a complex of historic standing structures. The site is situated in the uplands between the Elm Fork of the Trinity River and Isle du Bois Creek, approximately 150 m south of FM 455. The site elevation is 184 m. The site area encompasses over 0.5 hectare. A date inscribed in mortar on the side of the main house reads 1943.

The site includes a surface scatter of historic household debris including broken bottle glass, crockery, and metal fragments. The area of artifact scatter is about 0.57 ha, generally 80 m north-to-south and 105 m east-to-west. The soil is Navo clay loam.

The farmstead is composed of seven standing structures (Figure 4-46). The main house is in the northwestern portion of the site. It is approximately 11 m north-to-south and 11 m east-to-west and probably represents one of the more recent structures at the site. It is presently occupied and dates to 1943. Located in the far eastern part of the site area is a double-crib log barn. It is approximately 7.5 m north-to-south and 12 m east-to-west. An adjoining corral-like feature extends immediately south of the barn and encompasses approximately 0.05 ha. Although the barn is still utilized, it has undergone some deterioration.

The remainder of the standing structures are outbuildings. Each building is small and its function is difficult to discern. However, preliminary identifications include: a board-and-batten smokehouse, a collapsed log shed, a log building with chinking, and a block pumphouse. Two standing posts and several limestone rocks and boards were located under a tree in the northern portion of the site area.

Testing Results

Subsurface testing at 41DN143 consisted of 11 shovel tests placed at various locations on the site area. Shovel Tests 1, 2, 3, 4, 6, and 10 yielded artifacts while 5, 7, 8, 9, and 11 were sterile. All of the shovel tests reached a depth of 25 to 30 cm. Most of the artifacts consisted of glass, crockery, and metal fragments. One fragment of bone was collected.

Artifacts

The shovel testing program at 41DN143 produced 59 historic artifacts. Only one ceramic artifact was recovered, and it was a colored slip/glaze stoneware sherd. The 32 bottle glass fragments were body pieces (2 clear, 4 purple, 4 green, 21 blue-green, and 1 turned glass). In addition to 4 wire nails, the assemblage included 1 metal brace, 1 snap, 1 plastic fragment, 1 rubber fragment, 4 shingle fragments, and 14 unidentified metal fragments.

41 DN 143

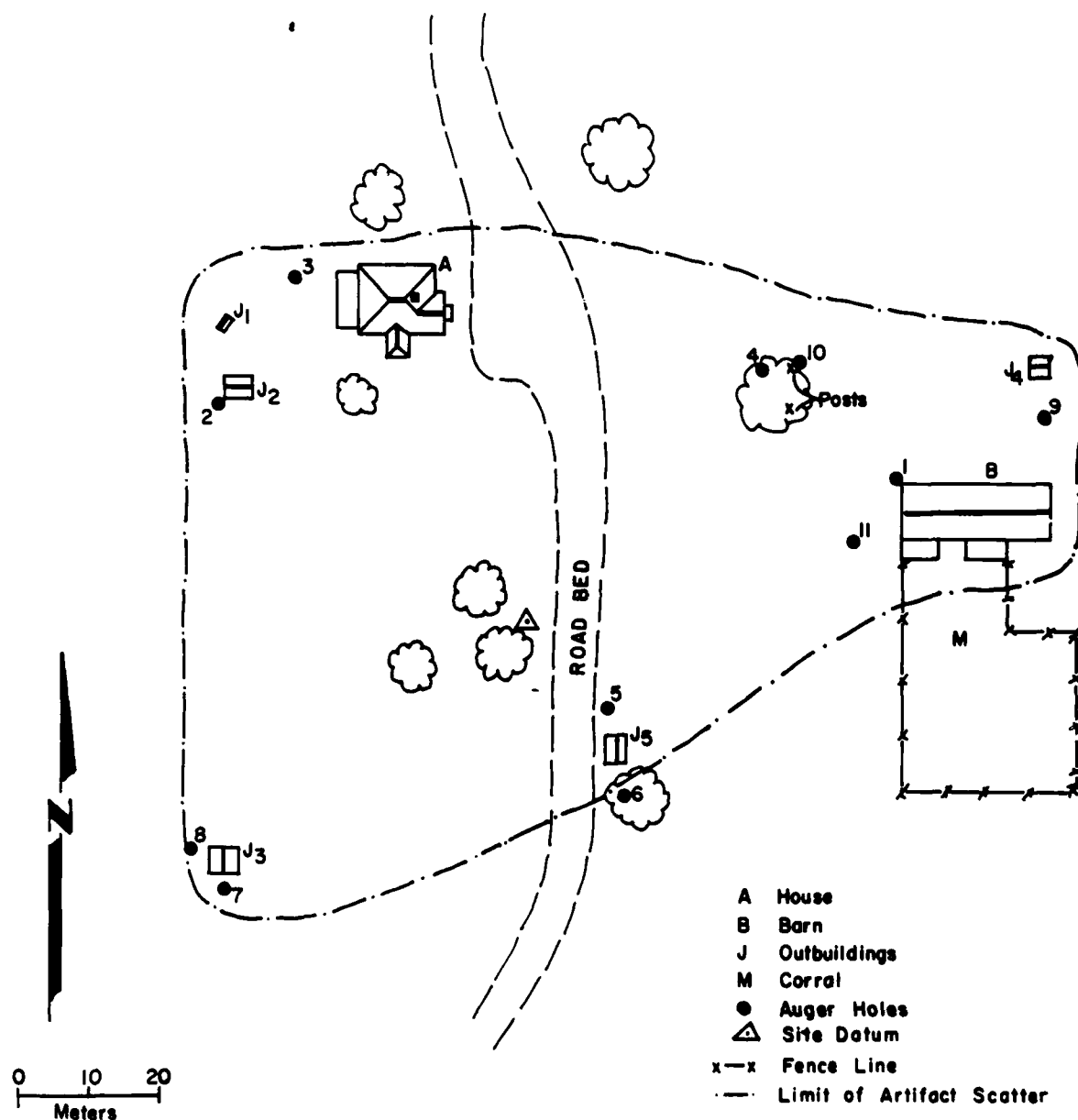


Figure 4-46. Plan of historic site 41DN143.



Summary

Site 41DN143 is a cluster of standing buildings associated with a moderately dense artifact scatter. No subsurface features could be discerned. No further work is recommended.

41DN146

Site 41DN146 is an historic farmstead site located approximately 0.5 km south of FM 455, 100 m east of a dirt road and 150 m southwest from site 41DN194. The site is situated on the edge of a small wooded grove at an elevation of 190 m.

The site consists of a small historic scatter of glass (mostly brown) and some tin fragments. A small log barn is the only standing structure in the site area (Figure 4-47). It is a one-and-a-half story log barn with handhewn, half dove-notched logs. The roof is made of corrugated tin. A mud-chink mortar was used between the logs. Along the west side of the barn is a vertical board-and-batten shed extension. The gables of the log barn are different in that the north gable is made of lap wood shingles and the south gable is of the tongue and groove style. The site is approximately 0.004 ha or 5.8 m north-to-south and 7.5 m east-to-west.

Testing Results and Artifacts

Subsurface testing at 41DN146 involved only four shovel tests placed in the four cardinal points of the site. Shovel Tests 1, 3, and 4 revealed no cultural material, while Shovel Test 2 yielded some ceramic pieces, glass fragments, and one whole bottle. The ceramic pieces consisted of one plain, undecorated earthenware sherd and four brick fragments. The glass fragments are six bottle body fragments. The whole bottle was manufactured on an automatic bottle machine and is a medicinal bottle. Two of the shovel tests, 2 and 3, reached a depth of 10 cm; Shovel Test 1 went down 25 cm, and Shovel Test 4 reached a depth of 20 cm.

Summary

Site 41DN146 is a standing log building associated with a sparse artifact scatter which has very little depth. No subsurface features were located. No further work is recommended at this site.

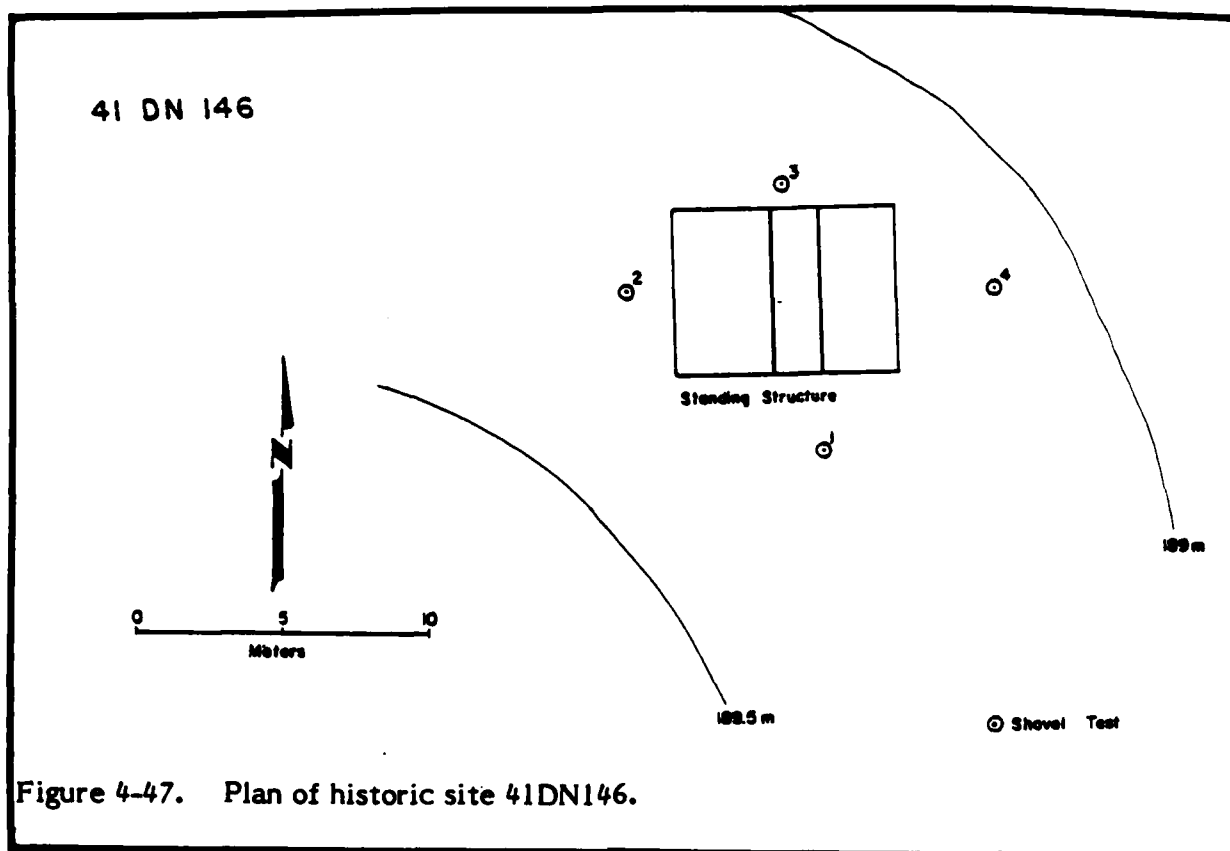
41DN194

Site 41DN194 is an historic occupation site located on the edge of a T1 terrace at an elevation of about 187 m. The site is situated on a prominent hill 0.45 km south of FM 455 and 0.95 km west of the Elm Fork of the Trinity River.

The site consists of two large brick concentrations on the east side of the site and a large historic artifact scatter on the west side of the site (Figure 4-48). The site covers an area of 0.13 ha and extends about 62 m north-to-south and 188 m east-to-west. The soil is Navo clay loam.

Testing Results

Subsurface testing at 41DN194 consisted of five auger holes placed on and around the site and one test excavation unit. All of the auger tests reached a depth of 5 cm below surface and were terminated because dense clay was encountered at that depth. Only



one auger hole revealed any subsurface material on the site. Auger Hole 3, in the central part of the artifact scatter, produced a purple glass sherd. Test Unit 1 is a 1 x 1 m test pit situated in the south-central portion of the artifact scatter. It was excavated to a level of 20 cm below surface. The stratigraphy associated with 41DN194 is presented in Appendix 4.

Following completion of the augering and the test excavation unit at 41DN194, two transect collections were made through the central portion of the site: the first was north-south and was 42 m long; the second ran east-west and was 45 m long.

Artifacts

The historic assemblage from 41DN194 consists of 385 items. Approximately 36% of the material was retrieved from controlled surface collection and the remainder from the single excavation unit. The majority of items from the surface were bottle glass fragments, whereas a larger percentage of the excavation assemblage was metal. Of the total inventory, 15% was ceramic (50 pieces), 50% was glass (197 pieces), and 33% was metal (136 pieces). Ceramic decorations for the earthenware are plain, mold decorated, flow blue transfer print, annular band, gilded rim, decalcomania, and mold decorated/decalcomania. The stoneware sherds had colored slip/glazes, alkaline glaze exterior with Albany slip interior, and Bristol/glaze with a blue underglaze design. The porcelain is plain and mold decorated. The bottle glass consists of machine-finished lip/neck fragments, 185 body fragments (clear, purple, green, brown, milk glass and blue-green), and two mold/marked/embossed bases. There was also milk glass jar liner fragments and one tumbler fragment. Additional items include 12 small aluminum machine fittings, one ornamental key, one wastebasket top, one plastic button, and one Mother-of-Pearl button. The artifact inventory is presented in Table 4-14.

41 DN 194

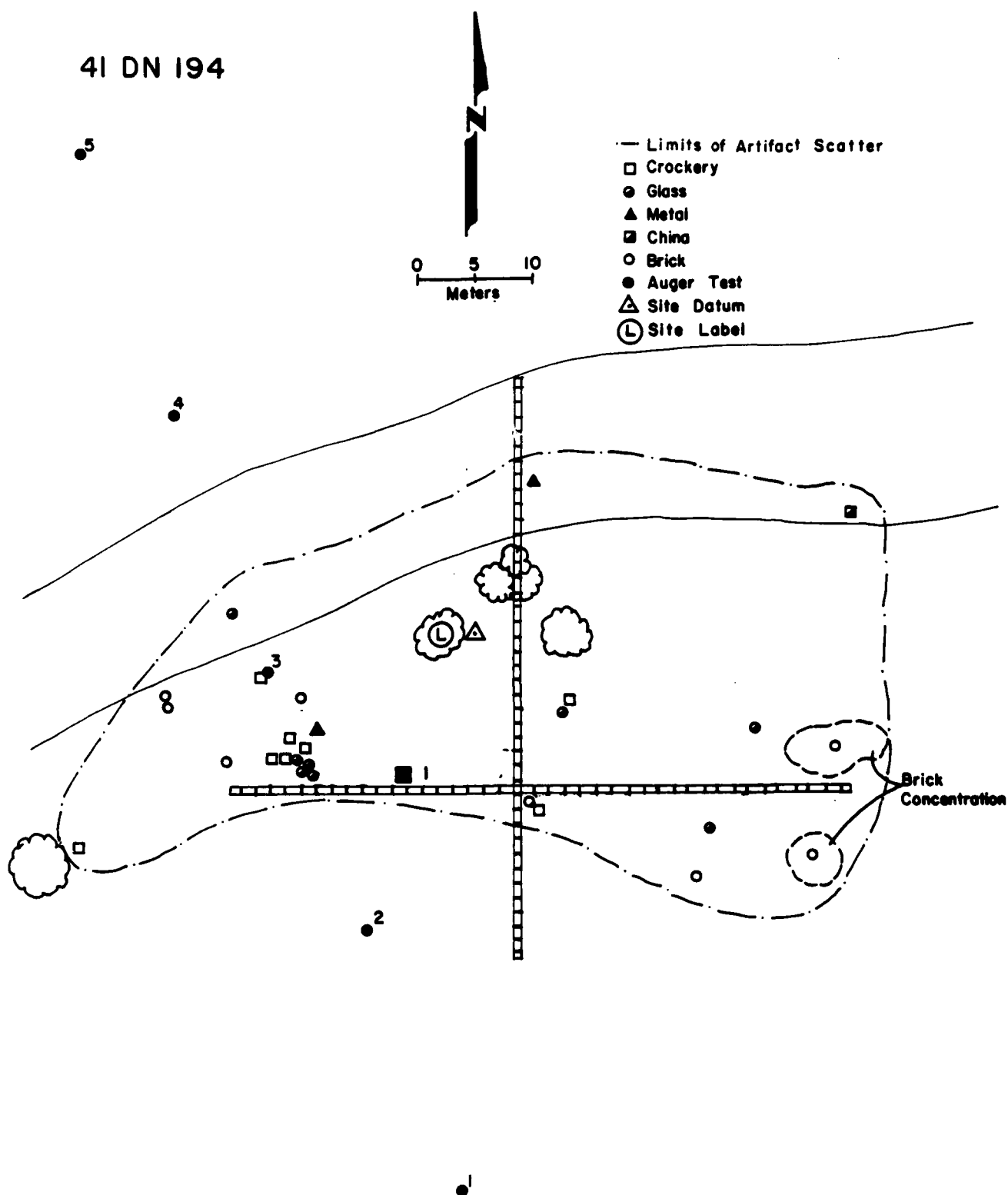


Figure 4-48. Plan of historic site 41DN194.



Table 4-14.
Historic artifacts recovered: 41DN194

Type	Surface	Test Unit 1	Total
CERAMIC			
Earthenware			
Plain decoration	5	7	12
Mold decorated	2	3	5
Flow blue transfer print	4		4
Annular band		2	2
Gilded rim	1		1
Decalcomania	2	2	4
Mold decorated/decalcomania		1	1
Stoneware			
Albany/Glaze	3	3	6
Alkaline glaze exterior with Albany slip interior	1		1
Glaze exterior with Albany slip interior	4	4	8
Bristol/Glaze	1		1
Bristol/Glaze with blue underglaze design		1	1
Porcelain			
Plain decoration		3	3
Mold decorated		1	1
GLASS			
Bottle fragments			
Lip-neck-machine-finished			
Clear		2	2
Blue	1		1
Body			
Unmarked			
Clear	19	50	69
Purple	6	3	9
Green	33	31	64
Brown	10	6	16
Blue-green	8	2	10
Molded/embossed			
Clear	8		8
Blue-green	1	6	7
Base			
Mold marked/embossed			
Brown	1		1
Blue-green	1		1
Milk glass-white			
Jar liner	3	3	6
Other	1	1	2
Tumbler-unmarked	1		1
METAL			
Wire nail		51	51
Square nail		5	5
Staple		1	1
Screw		2	2
Nut		1	1
Tin can		5	5
Rim		1	1
Aluminum fittings, small		12	12
Key, ornamental	1		1
Wastebasket top	1		1
Unidentified	20	36	56
OTHER			
Plastic		1	1
Button, mother-of-pearl	—	—	—
TOTAL	138	247	385

Summary

Site 41DN194 is a large surface scatter in an uneroded pasture. Features include a possible trash pit and burned sheet midden. A site such as 41DN194 with good archaeological potential in this part of the project area should be investigated further to gain a more thorough understanding of the regional chronology and settlement history.

41DN195

Site 41DN195 is an historic occupation site located on the edge of the T1 terrace at an elevation of about 184 m. The site is situated about 1.18 km south of FM 455 and about 1.18 km west of the Elm Fork of the Trinity River.

The site consists of an apparent rectangular outline of a structure foundation. The outline is defined as a row of stone blocks and a low mound (Figure 4-49). A scatter of historic artifacts is associated with the foundation. It consists of broken bottle glass, window glass, earthenware, bricks, and several unidentifiable metal fragments. The site covers an area of 0.08 ha and extends about 49 m north-to-south and 29 m east-to-west. The soil is Lindale clay loam, and some minor erosion has occurred.

Testing Results and Artifacts

Subsurface testing at 41DN195 consisted of eight auger holes. Only three auger holes revealed any white paste, earthenware sherds on the site. The first of these, Auger Hole 2, contained 2 mortar fragments from 0 to 25 cm below the surface. Auger Hole 3 revealed subsurface material to 20 cm below surface. Auger Hole 5 produced two ceramic sherds from 0 to 14 cm below the surface.

Following completion of the augering at 41DN195, two transect collections were made through the central portion of the site. The first was roughly north-south and was 45 m long. The second measured 30 m long and was generally oriented east-west.

Only 22 artifacts were collected from the site, excluding the above mentioned mortar fragments. Six earthenware sherds (plain and mold decorated) were collected from two auger holes and seven bottle body glass fragments (one clear, one brown, and five purple) were recovered from the surface. Other glass artifacts included four milk glass jar liner fragments, two fragments of glass hollowware, and one piece of window plate glass. No metal fragments were collected.

Summary

Site 41DN195 is a partially eroded sparse artifact scatter. No subsurface features could be found. No further work is recommended for this site.

41DN196

Site 41DN196 is a small standing farm house with an associated root cellar depression. The site rests on the first terrace of Isle du Bois Creek, 1.6 km south of FM 455 on the immediate west side of Diet Road. The site elevation is 178 m. The zone of most intense occupation covers an area 17 m north-to-south and 12 m east-to-west. The soil is Medlin-Sanger stony clay.

41 DN 195

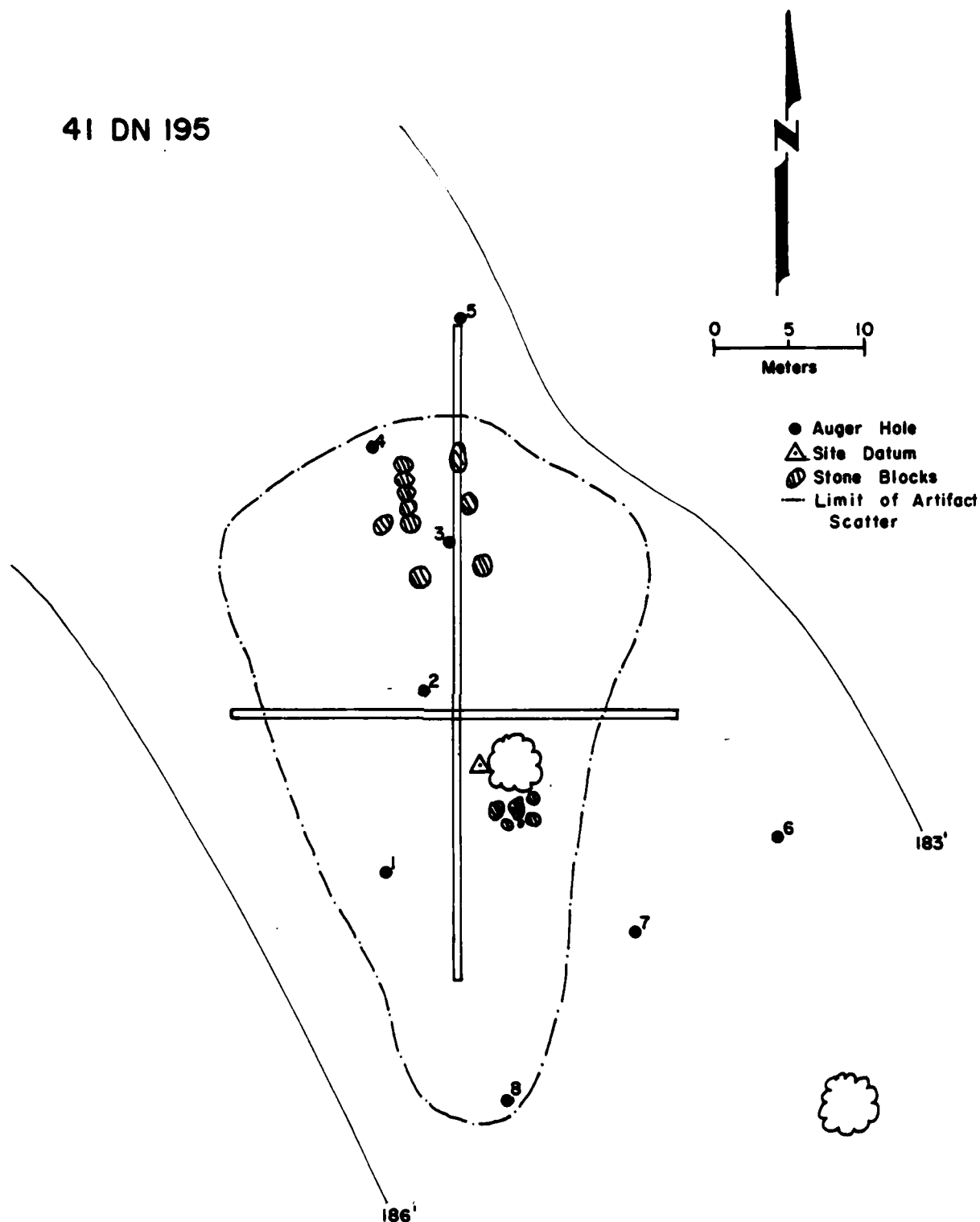


Figure 4-49. Plan of historic site 41DN195.



The farm house consists of two-story, vertical, single-pen, board-and-batten construction with shed additions on the north and west walls (Figure 4-50). The roof is gabled and corrugated. The ground floor space of the structure is approximately 0.006 ha.

Testing Results

Subsurface testing at 41DN196 consisted of four shovel tests placed at various locations on the site area. Only Shovel Test 2 yielded any artifacts. All of the shovel tests were excavated to a depth of at least 20 cm, though Test 2 was taken 35 cm below the surface.

Artifacts

The material recovered from 41DN196 consisted of 171 items. Approximately 90% of the inventory was metal, nearly all of which was wire and can fragments. The only ceramic material at the site was one brick fragment. The glass artifacts are 11 bottle body fragments (9 clear and 2 brown), 1 unmarked tumbler fragment, and 9 milk glass hollowware fragments. The assemblage included one zinc cap piece and a battery fragment. The results of the artifact counts are presented in Table 4-15.

Summary

Site 41DN196 is a standing structure surrounded by a sparse artifact scatter with no depth. The only feature is a root cellar depression. No further work is recommended for this site.

41DN198

Site 41DN198 is an historic farmstead. The site is situated on a terrace or upland slope about 0.7 km west of Isle du Bois Creek at an elevation of 184 m. The site extends over an area greater than 1 ha. Access can be gained to the site by following a dirt road south of FM 455 approximately 0.5 km east of Isle du Bois Creek. The site is on the south side of the first major curve in the road to the east.

The site consists of a surface scatter of historic household debris including ceramics, glass, and wire nails. The area of artifact scatter is about 1.17 ha, generally 116 m north-to-south and 250 m east-to-west (Figure 4-51). The soil is Birome fine sandy loam.

The farmstead is composed of six standing structures. The main log house is near the center of the site area. It is approximately 12 m north-to-south and 13 m east-to-west. The northern extension of the structure is a board-and-batten construction. It should be noted that the main house is near the summit of a gentle hill with the remainder of the farmstead slightly below it.

The other buildings in the site area include a hay crib, a stable, a windmill, and two additional outbuildings. One of the latter two outbuildings may be a collapsed stable.

Testing Results and Artifacts

Subsurface testing at 41DN198 consisted of 10 shovel tests placed at various locations on the site area. Shovel Tests 1, 2, 3, 4, 5, 9, and 10 yielded artifacts while 6, 7, and 8 were sterile. All of the shovel tests reached a depth of 30 cm. Most of the artifacts

41 DN 196

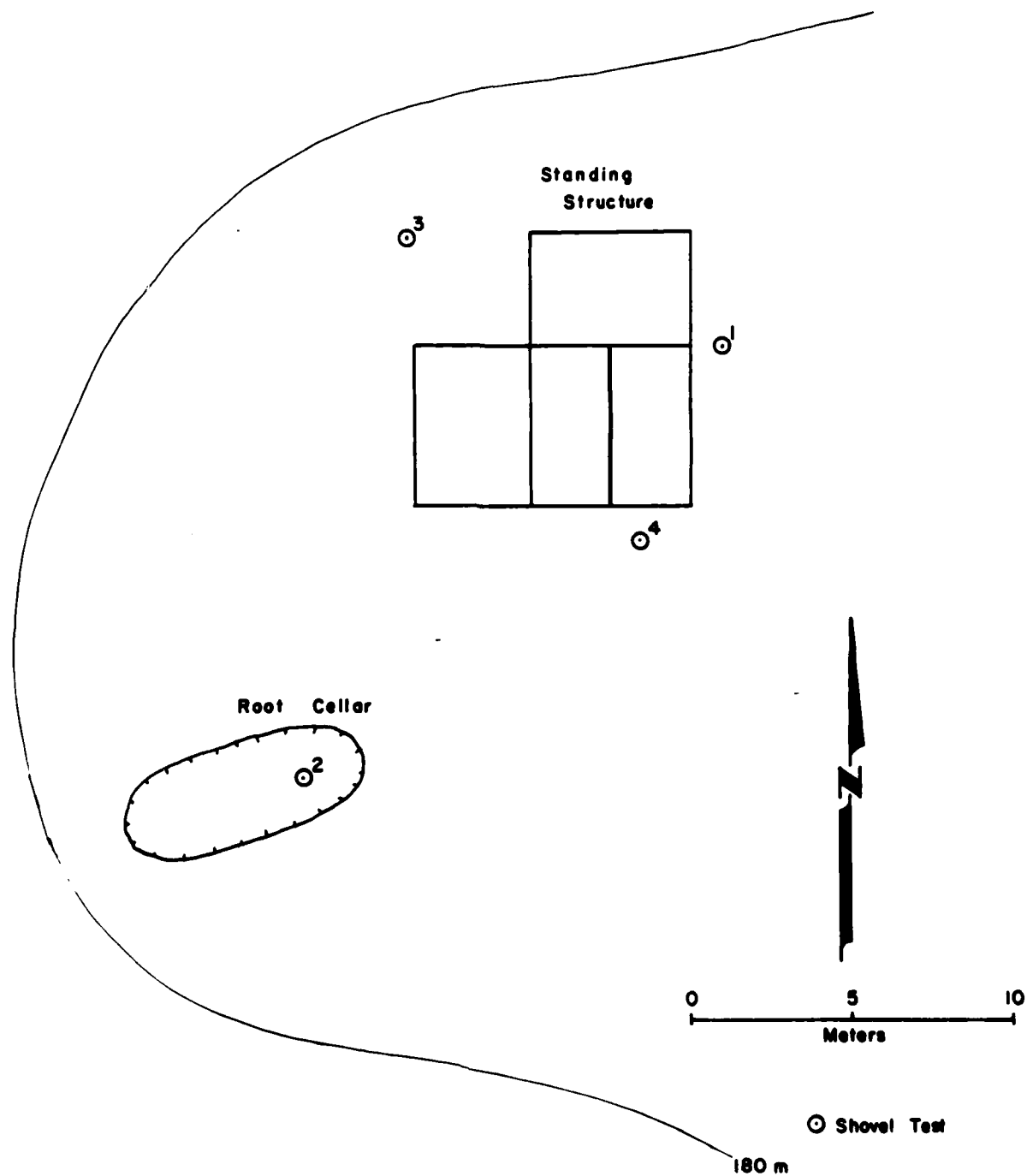


Figure 4-50. Plan of historic site 41DN196.

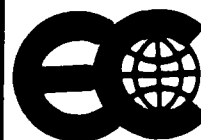


Table 4-15.
Historic artifacts recovered: 41DN196

Type	Shovel Testing	Total
CERAMIC		
Brick	1	1
GLASS		
Bottle fragments		
Body		
Unmarked		
Clear	9	9
Brown	1	1
Molded/embossed	1	1
Hollowware-milk glass	9	9
Tumbler-unmarked	1	1
METAL		
Wire nail	1	1
Barbed wire	4	4
Wire	96	96
Bolt	1	1
Zinc cap	1	1
Spring	1	1
Tin can fragments	37	37
Battery fragments	9	9
Unidentified	3	3
TOTAL	175	175

consisted of ceramics, glass, and nails, though a fruit pit fragment was identified. Of the 31 fragments collected, 20 were bottle glass (3 machine-molded lip/neck fragments and 17 unmarked body fragments). The single ceramic sherd is an Albany/glaze stoneware sherd. In addition, one metal strap fastener and two terra cotta pipe fragments were recovered.

Summary

Site 41DN198 is a large cluster of standing structures with an associated artifact scatter. No subsurface features were noted, yet a portion of the scatter exhibited moderate depth. A site such as 41DN198 with reasonable archaeological potential in this part of the project area should be investigated further to gain a more thorough understanding of the regional chronology and settlement history.

41DN200

Site 41DN200 is an historic occupation site located on the edge of a T1 terrace at an elevation of about 183 m. The site is situated about 0.78 km east of Isle du Bois Creek and 2.23 km south of FM 455.

The site consists of a brick concentration that may be the remnants of a structure foundation. A scatter of historic artifacts is associated with the brick concentration and with an apparent cellar which was noted about 30 m northeast of the concentration. Also, there are a number of ironstone rocks at the north end of the site which may be associated with another structure (Figure 4-52). The surface artifacts noted at the site are broken bottle glass, porcelain, bricks, crockery, and other ceramics. The site extends 40 m north-to-south and 36 m east-to-west. The soil is Medlin-Sanger clay.

41 DN 198

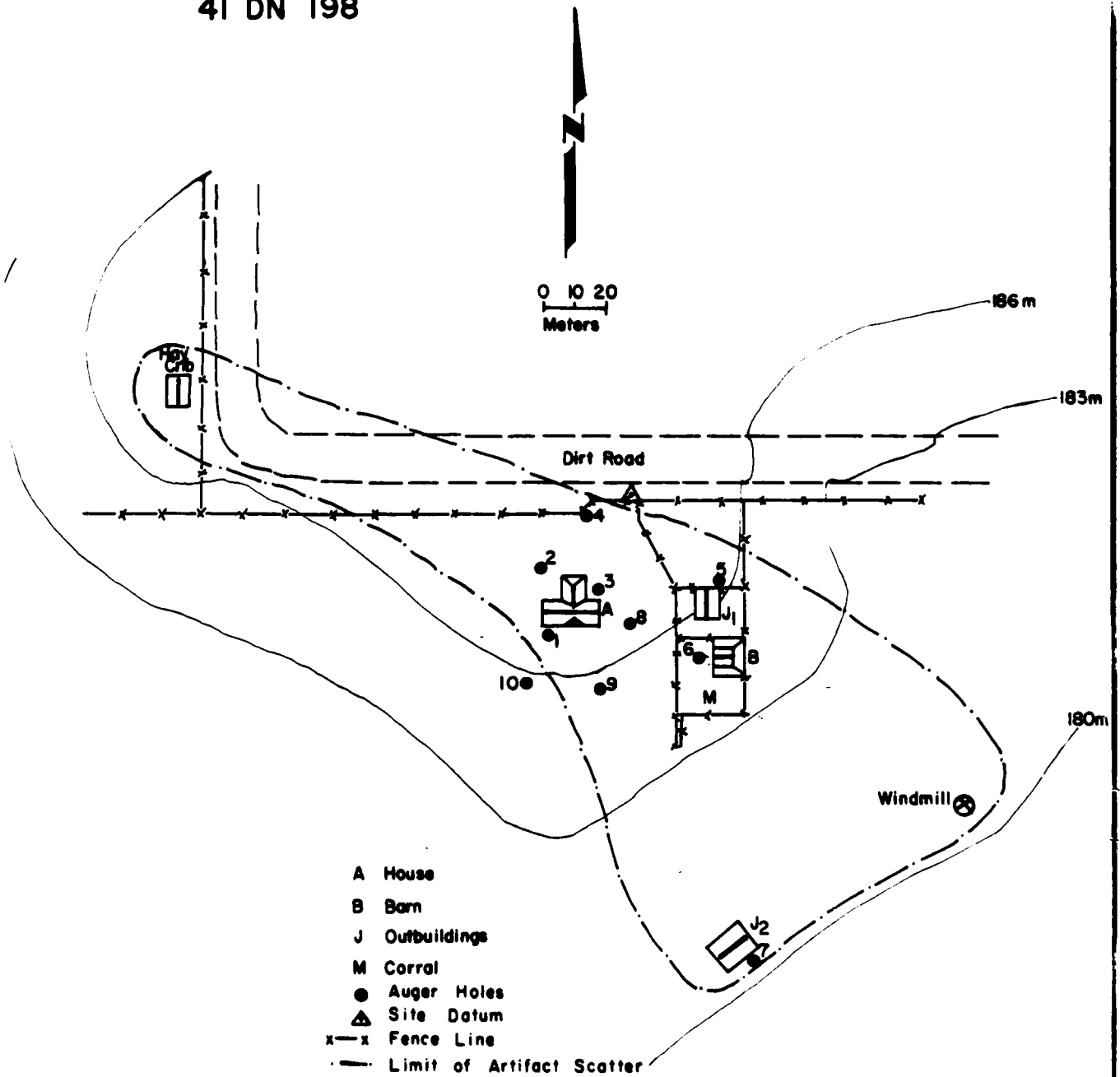


Figure 4-51. Plan of historic site 41DN198.



41 DN 200

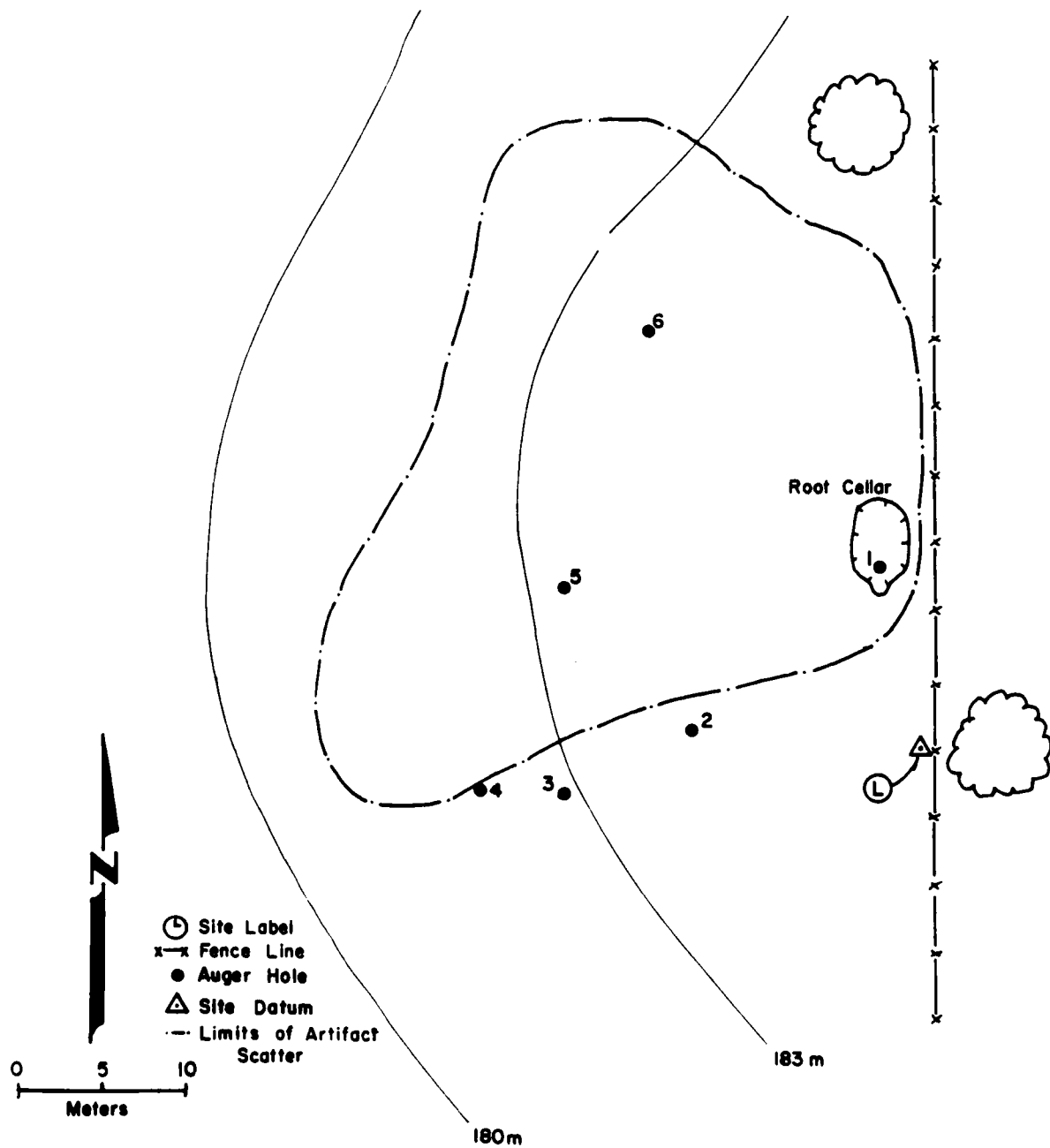


Figure 4-52. Plan of historic site 41DN200.



Testing Results

Subsurface testing at 41DN200 consisted of six auger holes across the site and one auger hole placed in the apparent cellar. Auger Holes 1 and 4 yielded artifacts while 2, 3, 5, and 7 were sterile. The tests varied in depth from 8 to 80 cm. A 1 x 1 m test unit also was placed in the cellar just north of the auger hole. The stratigraphy associated with Test Unit 1 is presented in Appendix 4.

Following completion of the augering and test excavation at 41DN200, a controlled surface collection was made.

Artifacts

The historic assemblage from 41DN200 is composed of 168 items, of which 35 were surface collected and 135 collected during controlled excavation. In terms of the entire assemblage, ceramics accounted for 55 items, glass for 11, and metal for 100. The artifact inventory is provided in Table 4-16.

Summary

Site 41DN200 is a moderately dense artifact scatter associated with a root cellar and structure foundation. No further work is recommended for this site.

41DN201

Site 41DN201 is an historic artifact scatter located on the edge of a T2 terrace at an elevation of 197 m. The site is situated about 1 km south of FM 455 and 0.5 km east of the road that extends south from the Calvert wrecking yard.

The site consists of a scatter of historic artifacts, including glass, metal, porcelain, and crockery (Figure 4-53). The site covers an area of 0.52 ha and extends 77 m north-to-south and 108 m east-to-west. The soil is Silstid loamy fine sand.

Testing Results

Subsurface testing at 41DN201 consisted of seven auger holes. Only three auger holes revealed any subsurface material. Auger Hole 1 produced a brown bottle fragments, Auger Hole 3 produced a metal plow piece 25 cm below the surface, and Auger Hole 4 produced two clear glass sherds between 23 and 47 cm below the surface. All the auger tests were excavated to a depth of at least 45 cm except Hole 3 which was terminated at 35 cm because of large rocks encountered at that depth.

Following completion of the augering at 41DN201, two collection transects were made through the central portion of the site: the first was roughly southwest-northeast and was 57 m long; the second measured 51 m and ran roughly northwest-southeast. Recovered from the surface collection were 8 ceramic fragments, 19 bottle glass fragments and 1 hollowware fragment.

Artifacts

The historic artifact assemblage from 41DN201 is composed of 40 items, of which 37 were collected from the surface and 3 from augering. Ceramics comprised 8 items, glass fragments accounted for 30, and metal for 2. The artifact inventory is given in Table 4-17.

Table 4-16.
Historic artifacts recovered: 41DN200

Type	Surface	Test Unit 1	Total
CERAMIC			
Earthenware			
Plain decoration	7	2	9
Plain dec. with maker's mark	1		1
Mold decorated	1		1
Stoneware			
Bristol/Glaze exterior with Albany/Glaze interior	2		2
Porcelain			
Painted	1		1
Brick	5	36	41
GLASS			
Bottle fragments			
Body			
Unmarked			
Clear	1		1
Purple	2		2
Green	1	1	2
Blue	1		1
Blue-green	1		1
Base			
Unmarked-clear	1		1
Milk glass-white			
Jar liner	1		1
Other	2		2
METAL			
Wire nail	1	5	6
Staple		5	5
Bolt and nut		1	1
Barbed wire		3	3
Bedspring, fragments		10	10
Unidentified	5	70	75
OTHER			
Mortar	—	<u>2</u>	<u>2</u>
TOTAL	33	135	160

41 DN 201

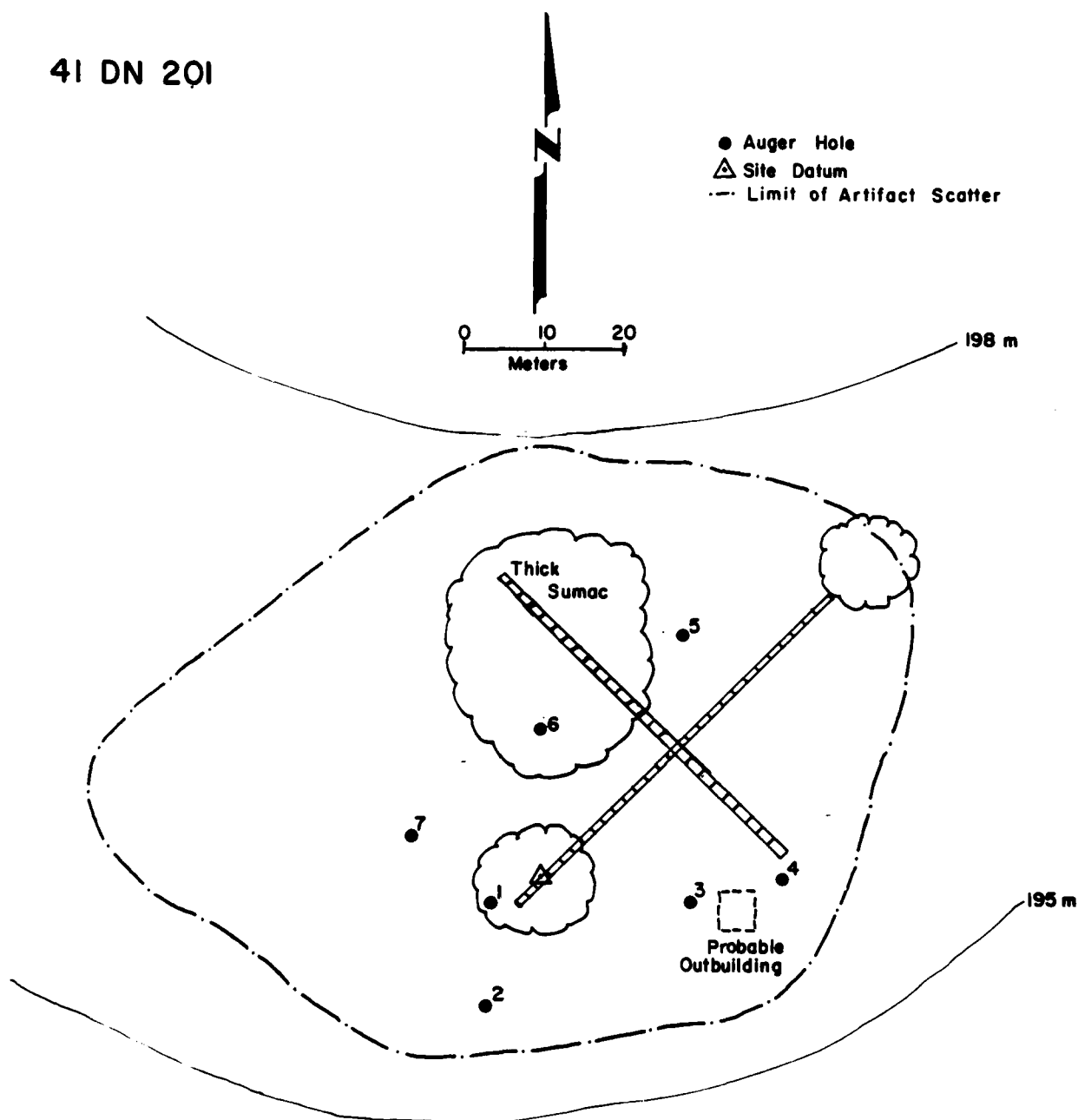


Figure 4-53. Plan of historic site 41DN201.



Table 4-17.
Historic artifacts recovered: 41DN201

Type	Surface	Auger	Total
CERAMIC			
Earthenware			
Plain	6		6
Mold decorated	1		1
Stoneware			
Albany/Glaze	1		1
GLASS			
Bottle fragments			
Lip/neck			
Machine finished			
Clear	1		1
Purple	1		1
Unidentified			
Purple	1		1
Body			
Unmarked			
Clear	11		11
Green	3		3
Blue-green	2		2
Brown		1	1
Purple	4		4
Mold marked			
Clear	1		1
Green	1		1
Hollowware-press molded	1		1
White milk glass			
Jar liner	1		1
Other	1		1
METAL			
Wire nail		1	1
Unidentified	1	1	2
TOTAL	37	3	40

Summary

Site 41DN201 is a moderately dense, partially deflated artifact scatter. No subsurface features were observed. No further work is recommended for this site.

41DN202

Site 41DN202 is located at the eastern base of a large knoll approximately 1 km due south from FM 455 and 1 km east of Isle du Bois Creek. It is situated at an elevation of 197 m, and measures approximately 0.17 ha or 75 m northwest to southeast and 42 m southwest to northeast.

The site consists of a large historic scatter with no standing structures (Figure 4-54). Cultural artifacts observed include glass, crockery, earthenware, and metal. A house is believed to have stood near the vicinity of some yucca plants and wooden boards.

Historic Background

Site 41DN202 was originally part of the Charles Y. Douglass patent filed in 1872. There is a gap in the deed records from 1872 to 1881. In 1881, Robert Thomas sold this land, 67.5 ac, to George T. Smith. Elizabeth Smith bought this property from her husband, George, in 1883 and held the land until 1889 when she sold it to Mike Phillips. A.P. Crosgrove held the two notes that Phillips used to pay Elizabeth Smith. These notes finally were paid off in 1902. In 1934, F.S. Wilson was made trustee of this tract; Mike Phillips had died and his wife, Mary, was executrix of the estate. At this point, the

41 DN 202

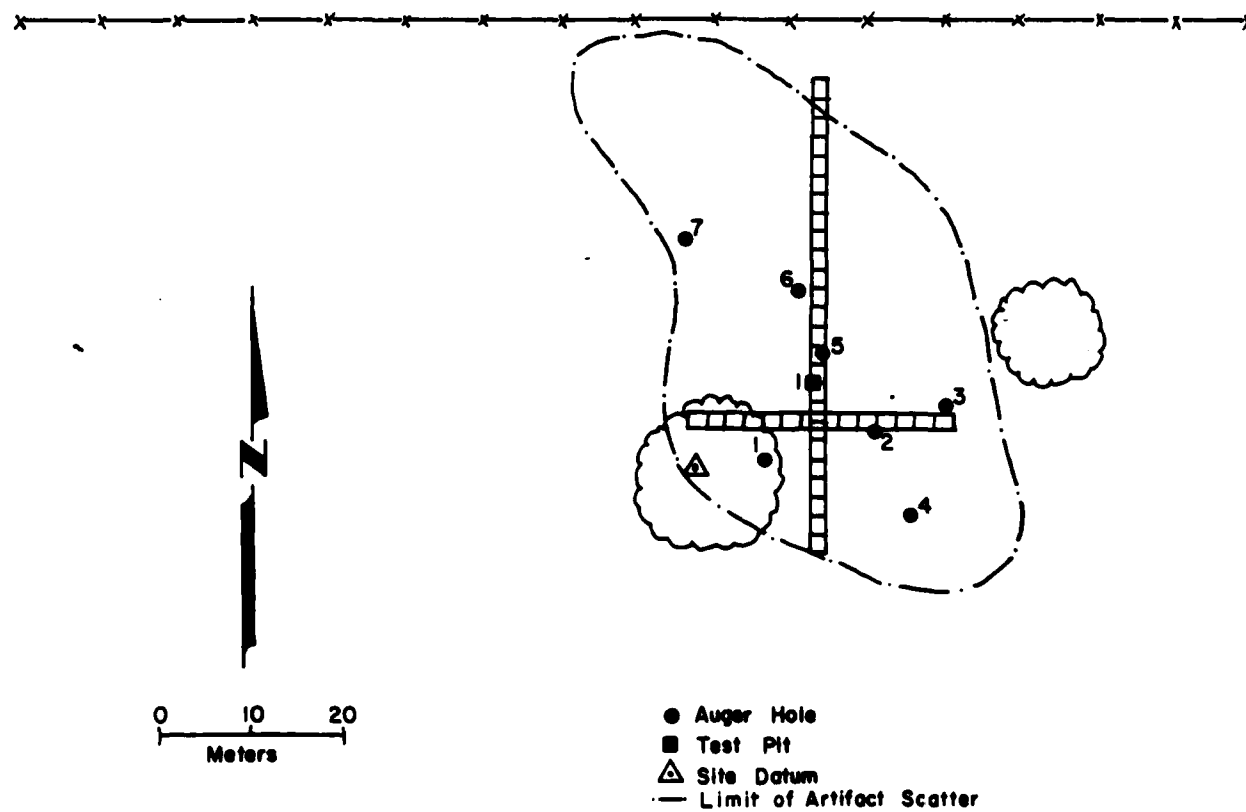


Figure 4-54. Plan of historic site 41DN202.



deed records become confusing. Apparently, there was a family feud over the land between the Phillips and a son-in-law, Lit Combs. Patrick Phillips lost a judgment in 1939 to Willis (Lit) Combs and Combs sold the land to J.S. Wilson. Although informants were questioned about this site, none were able to supply any information. Steve Hester was able to remember two people that might have information about this site: Bessie Newton Berkholder and Doc Newton, both of Sanger. Neither has as yet been contacted.

Testing Results

Testing at 41DN202 included one excavation unit at the center of the site, seven auger holes placed at various locations on the site area, and two collection transects from north-to-south and east-to-west, measuring 39 m and 30 m, respectively.

Subsurface testing at 41DN202 demonstrated that a house had once stood in the area. The auger holes all produced artifacts with the exceptions of Auger Holes 3 and 7. The majority of the auger holes reached a depth of 60 cm, and artifacts were found at that depth in Auger Hole 1. Auger Hole 5 produced fragments of burned wood. The rest of the auger holes yielded artifacts consisting of glass, nails, and earthenware, to a depth of 40 cm.

After the completion of the auger holes, two transects in a "T" shape were collected, running north-to-south and east-to-west. Glass and ceramics constitute the majority of artifactual material collected. Test Unit 1 was placed south of Auger Hole 5 and northwest of Auger Hole 2. Most of the artifacts collected were from Level 1. Level 1 was a 20 cm level producing various colors of glass, crockery, melted glass, and wire nails. Charcoal was in large quantities throughout the level. At the base of the level were two large burned boards, possibly house beams. In Level 2, there was a matrix color change as well as a drop in charcoal. At Level 3, most of the artifacts removed were found in the southeast corner of the unit. A rodent disturbance was evident at this corner; therefore, it was determined that the artifacts were carried down by a rodent from the upper levels. The unit was thereafter terminated after encountering a compact, sandy tan loam.

The excavation stratigraphy of Test Unit 1 is summarized in Appendix 4, and the western profile is shown in Figure 4-55.

Artifacts

The artifactual debris recovered from 41DN202 consisted of 211 items. In terms of the total assemblage, ceramics comprise 23 items (11%), glass represents 46 items (22%), and metal accounts for 141 items (67%). As is the case at most historic sites, most of the metal came from excavation exposure. This suggests that metal exposed to the elements will corrode and disintegrate rapidly. Included in the assemblage are 16 earthenware sherds, 4 stoneware sherds, and 2 porcelain fragments. Glass artifacts are mostly bottle fragments, of which 1 is a machine-finished lip/neck, 318 are body fragments (unmarked, molded/embossed, and painted), and 2 are unmarked bottle bases. Other glass artifacts are milk glass and tumbler fragments. In addition to various metal hardware pieces are one hinge, one bullet cartridge, and one metal hook. See Table 4-18 for a complete list of the artifacts and their counts.

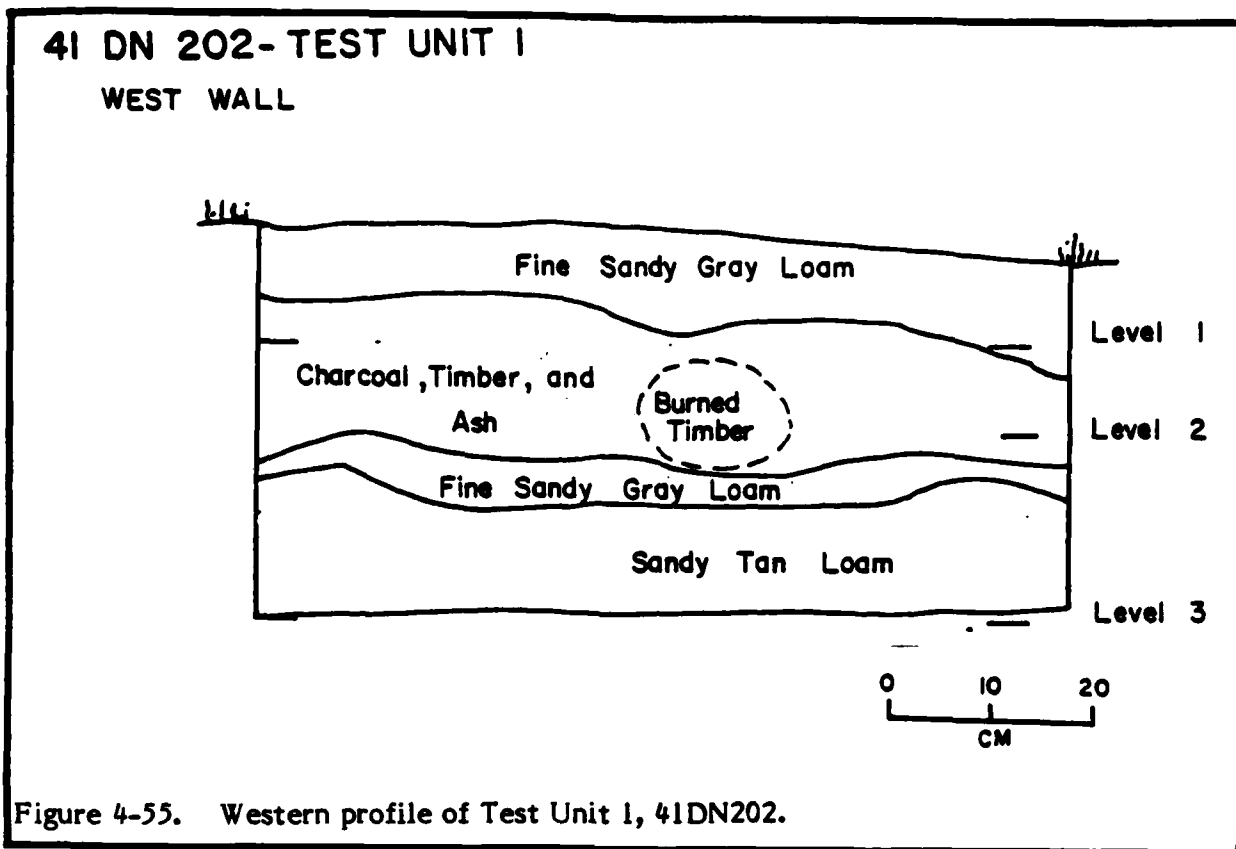


Figure 4-55. Western profile of Test Unit 1, 41DN202.

Summary

Site 41DN202 is a moderately dense, undisturbed surface scatter. No subsurface features were noted except a buried layer apparently resulting from a burned structure. A site such as 41DN202 with good archaeological potential in this part of the project area should be investigated further to gain a more thorough understanding of regional chronology and settlement history.

41DN223

Historic Background

According to Steve Hester (interview 9-7-81), J.T. Hester came to Texas from Missouri in about 1870, maybe earlier, with his brother, H.B. Hester, a deceased brother's wife, Elizabeth Hester, and a man named Johnson. It is not known when J.T. Hester acquired the Hester homestead because deed research has not been completed. It is known that he acquired the 97 ac of the homestead in two parcels. The first parcel was acquired by trading a team of mules and the second through trading cows for the land. J.T. Hester died in 1878 and was buried in the Jackie Davis Cemetery. S.H. Hester, J.T. Hester's son, was raised at this site and lived there with his wife, Elizabeth, and family until his death in 1904.

Originally, there was log structure at the site of the present house. The log house was built before the Hesters purchased the land. Steve Hester's father, Oscar, was born at this site in 1889. It is not known when the log structure was torn down and the present house was built. A part of the log structure was maintained when the present structure was built. A picture taken in 1904 shows this log room, and Steve Hester, born in 1911, remembers the log room on the house but does not know when it was destroyed. As a

Table 4-18.
Historic artifacts recovered: 41DN202

Type	Surface	Augering	Test Unit 1	Total
CERAMIC				
Earthenware				
Plain decoration	4	3	3	10
Mold decorated	2		1	3
Mold decorated with blue slip (underglaze)	1			1
Decalcomania/mold decorated	1			1
Yellow glaze			1	1
Stoneware				
Albany/Glaze	1		3	4
Porcelain				
Plain	1			1
Painted			1	1
Brick	1			1
GLASS				
Bottle fragments				
Lip/neck-machine-finished				
Clear			1	1
Body				
Unmarked				
Clear	2	3	9	14
Purple	3		2	5
Green		1	4	5
Brown	2		5	7
Blue-green	2	3		5
Molded/embossed				
Purple			1	1
Painted-over-clear			1	1
Base-unmarked				
Clear		1		1
Blue-green		1		1
Milk glass				
White				
Jar liner	1			1
Other			1	1
Blue-other	1			1
Tumbler-unmarked	1		1	2
METAL				
Wire nail	1	2	90	93
Square nail			8	8
Staple		1	3	4
Screw			1	1
Wire			6	6
Hinge			1	1
Bullet cartridge			1	1
Barbed wire			3	3
Hook			1	1
Unidentified	1	2	20	23
OTHER				
Wood	—	—	1	1
TOTAL	25	17	169	211

water source for the family, there was a flowing well northeast of the house where the cement block building is today. On the west side of the house is a cellar. The sides of the cellar are stone, and Steve Hester remembers helping his father replace the ceiling with Bois d'Arc beams.

In 1930, Oscar Hester leased this land from his mother, Elizabeth. He ran a small dairy operation, taking the cream to Sanger to sell and have freighted to Ft. Madison, Iowa. This continued until 1939, when Elizabeth Hester sold the land to A.E. Sadau, the current owner.

Bink Simpson Sawmill

Historic Background

Bink Simpson operated a portable sawmill between 1915 and 1942. The sawmill was located at two different places in the West Slough of the Elm Fork of the Trinity River on Simpson's land. Simpson also operated the sawmill for a 2 to 3 year period at Valley View during the late 1920s.

When the sawmill was located on the Elm Fork, Simpson used dynamite to blast out the necessary sawdust pits. The sawdust pits were fed by a chain and were shovelled out when filled. Water was piped from the creek by a steam-vacuum system and stored in a wagon-water tank which attended Simpson's steam engine tractor (Figure 4-56).

The steam engine used was the smaller of the two steam engines Simpson used for field work (plowing and threshing). A 100-ft belt connected the steam engine with the sawmill, and powered the entire operation, including two saw blades and a moving log carriage.

The two saw blades were 40-in circular cross-cut blades, stacked one above the other, which spun in opposite directions. A pulley on the shaft of the bottom saw powered a belt which connected with the upper saw. If the upper saw was not needed, the belt was removed. The two blades cut extremely close to each other and could saw logs measuring 100 to 125 cm in diameter.

The log carriage sat on two narrow-gauge tracks and moved the logs through the saw blades. The carriage speed was controlled by a cast iron pulley that worked like a clutch. Dimensions of the sawmill were estimated at 10 ft in height and 50 to 60 ft in length, including the carriage tracks (Figure 4-57).

It took five men to operate the mill. Two men tended the log carriage, turning the logs for new cuts. Bink Simpson oversaw the operation as sawyer. Another man would act as tail sawyer to pull the cut lumber and throw off slabs. A fifth man would be engineer of the steam engine.

Simpson would operate the sawmill as needed throughout the year, but heaviest use occurred in winter and spring. People brought Simpson their own timber which they hauled in low flat wagons with steel wheels. These customers would, in turn, assist with the operation by supplying labor. The number of hands available often would exceed the minimum five-man crew. Whole families would attend the event, which made the sawmill a community gathering place for socializing.

The majority of the timber cut at the sawmill was cottonwood and oak, with some elm and walnut. The lumber was used for barn construction, sheds, and fence posts.

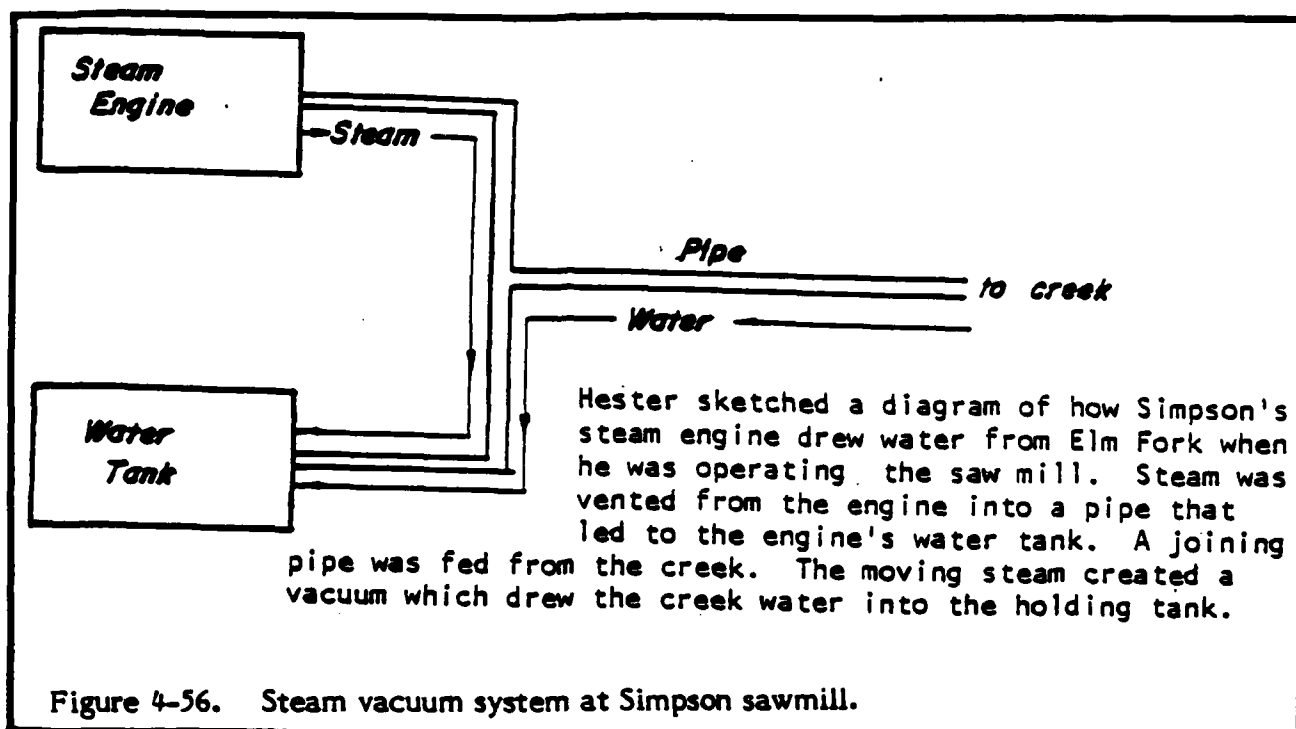


Figure 4-56. Steam vacuum system at Simpson sawmill.

Simpson's house (Site #123) was constructed with oak floor sills and cottonwood siding which he cut.

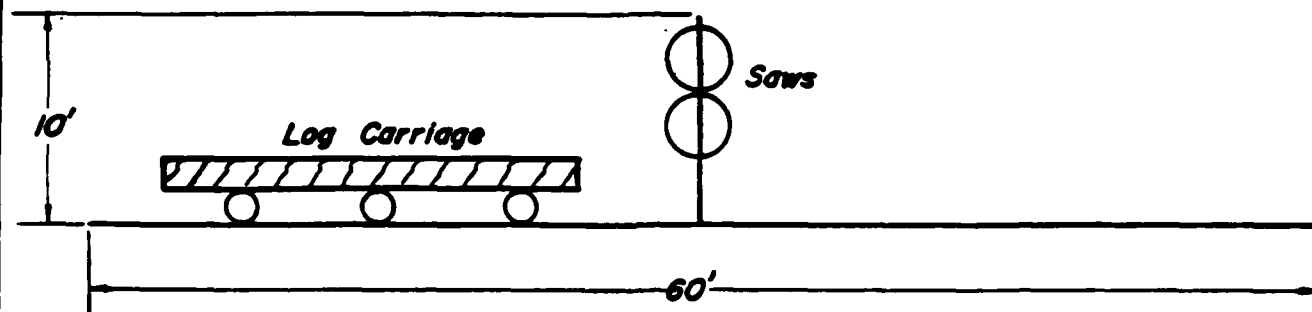
The sawmill occasionally served as a source of employment. Steve Hester worked for Simpson when the sawmill was at Valley View. The first year he worked as tail sawyer, the second as engineer. He was paid \$1.00 a day and room and board. Claude Simpson also worked at the sawmill.

Historical Research Overview

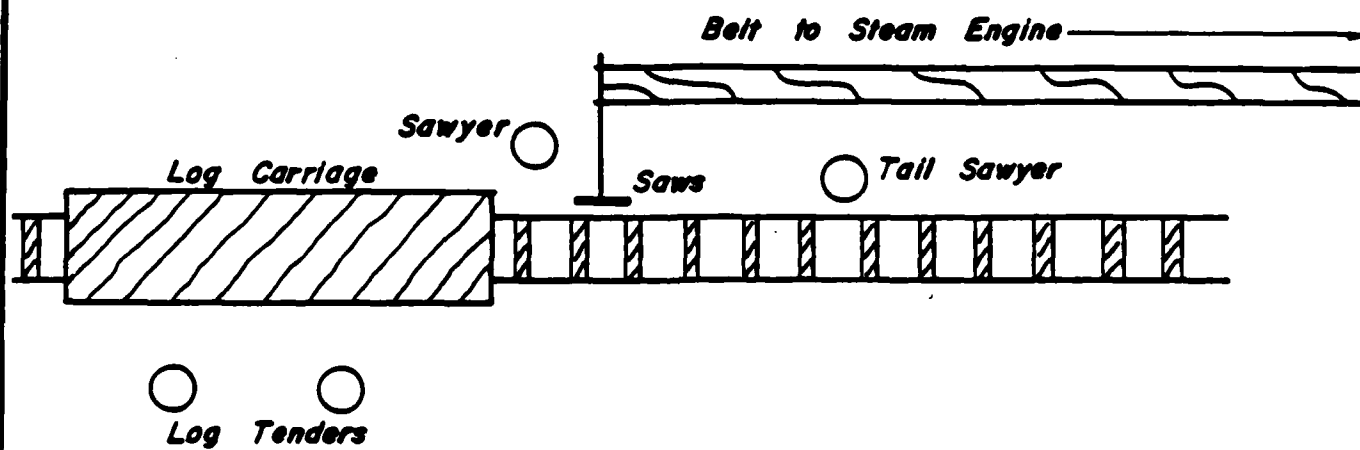
The Project Area, 1880

Because there are few documentary records of this area that could be used within the constraints of this investigation, the 1880 Census was relied upon for synthesizing a history of the project testing area at a point in time pre-1900. Although not always completely accurate, the Census can be useful in examining migration patterns, family size, the nature of the family, and agricultural patterns. Census material helped to confirm the findings of historic archaeological testing, and vice versa. Historic archaeological testing in the basic area shows early settlement patterns, and the 1880 Census confirms this information.

By looking at the number of professional occupations, the age of heads of households and family size, and the age and pattern of community, growth during this period can be understood. Agriculturally, the basic area was one of medium-size farms, 100 to 200 ac. Although the main crops differed from the 1850s-1880s period to the post-1900 period, the type of farming was similar. Often, after a farmer became established, he would lease land to grow more crops, giving the landowner a third of the crop. By looking at the 1880 Census, the pre- and post-1900 development can be seen.



Front View Sketch of Sawmill



Top View Sketch of Sawmill

Figure 4-57. Simpson sawmill.



The Census contains primary information about family size and structure. In this case, the extended family that will be referred to consists of the head of household, his spouse, his offspring and his or her parents. Although there were blacks in the area of tracts 104 and 109, they clearly represented a minority.

The families in tract 109 were usually between three and six members, average family size being 4.14. Out of 182 families, twenty-six of these had two members, thirty-one had three members, twenty-eight had four members, twenty-four had five members, and twenty-two had six members. It is interesting to look at the structure of the family in this situation. Of the thirty-one three-member families, six had members other than the extended family living with them: three had boarders, one family had a servant and one had a sister-in-law and an adopted son, and one had an adopted son living at the same residence.

Six of the four-member families had members other than the extended family living with them. The breakdown was very similar to the three-member families: three families had boarders, one family had a brother-in-law, one had a mother-in-law, and one family had an adopted son.

The twenty-four five-member families had three families with members other than the extended family: one family had a boarder, one had a servant and one had an adopted son and daughter living with them. The twenty-two six-member families had six families with members other than the extended family: three families had boarders, two had adopted sons and daughters and a mother-in-law, one family had an adopted daughter, and one family had a sister-in-law.

In tract 104, the same pattern emerges as in 109. The average family size is slightly larger, at 4.5 members. Out of 255 families, forty-seven had three members, forty had four members, thirty-seven had five members and twenty-nine had six members. Of the three member families, seven had members other than the extended family: two families had boarders, one family had a servant, one had a nephew, one had a grandson, one had a brother, and one had an adopted daughter.

Seven of the four-member families had members other than the extended family: one family had boarders, one had a sister-in-law and nephew, two families had one servant each, two families had nephews, and one family had a niece. Nine of the families with five members had people other than the extended family living with them: four families had boarders, one family had a nephew, a neice and a servant, two families had nephews, one had a cousin, and one family had a cousin and granddaughter.

Of the twenty-nine families with six members, six had members other than the extended family: one family had a mother-in-law and servant, one had a servant, one had a brother-in-law, one family had a cousin, and two families had grandchildren living with them.

The household patterns for these two tracts are families whose combined average size is 4.3, or between three and six family members. The family usually had one member who was not part of the extended family. However, as can be seen in the Census records, often the extra member is just beyond the bounds of the traditional extended family, e.g., a nephew or cousin. There are several instances as well of geographic extension of the original family unit, where the sons (and daughters) of the first generation have married, moved out, and begun their own families, but have stayed in the immediate vicinity of the parents' home.

Of 255 heads of households in tract 104, 17.6% were from Alabama, 14.9% were from Tennessee, 16.1% were from Missouri, and 9% were from Texas. Of the total population of tract 104 (1,284 adults and children), 37.1% were from Texas (this probably included most of the children), 16.4% were from Alabama, 11.9% were from Missouri, and 9.1% were from Tennessee. The same pattern is evident in tract 109. Of the 176 heads of households, 22.2% were from Missouri, 15.9% were from Kentucky, 23.3% were from Tennessee, and 11.9% were from Texas. From the total population in tract 109, adults and children, 41.7% were from Texas (probably includes most of the children), 16.5% were from Missouri, 13.5% from Tennessee and 7.8% were from Kentucky.

Looking at heads of households, the population was relatively young. In tract 109, out of 176 heads of households, fifty-seven were between twenty and twenty-nine and fifty-two were between thirty and thirty-nine. The next largest group is in the 40s age range. In tract 104, the pattern is essentially the same. Out of 255 heads of households, seventy-five were between twenty and twenty-nine and seventy-one were between thirty and thirty-nine. The rest of the population breaks down to ninety-two heads of households between forty and fifty-nine. The one difference that can be seen in these figures is in tract 104, where there are substantially more heads of households that fall within the forty to fifty-nine age range than in tract 109. This age group in tract 104 had children between fifteen and twenty years old that were born in Texas, thereby making this area slightly older than tract 109.

Out of a total of 1,284 adults and children in tract 104, the occupations of 362 people were not listed. A total of 245 were listed as "farmers" or "in farming," 267 were listed as being at school, 326 were listed as "keeping house or "at home." Six people were listed as horse, sheep, or cattle herders, so it is possible they might also have owned land. Tract 104 had more community services in 1880 than 109. There was one grocer, three teachers, one minister, one doctor, one clerk, one dry goods merchant, a carpenter, a butcher, four druggists, and an "agent of engens" (engines). The listing of these professions gives credence to the theory that tract 104 is an older settlement than 109, and may indicate the existence of an unidentified rural service center west of Pilot Point, because several of these service occupations were listed sequentially.

In tract 109, out of a total of 844 people, there were 299 whose occupations could not be traced. A total of 179 were listed as "farmers" or "in farming," and 68 were listed as "working on a farm." Twenty were listed as "at school" and 210 were listed as "at home" or "keeping house." There were some types of community services in the area as indicated by the 1880 Census. There was a school with one teacher. One grocer was listed along with two millers. However, there were no druggists, doctors or ministers as listed in tract 104. The categories used in enumerating occupations in the Census tracts can be misleading, such as the categories "farming," "farmer," and "works on farm." These categories can add confusion to the statistics garnered from the Census, because they do not adequately distinguish between landowners, tenants, and farm laborers.

Although blacks were not a significant portion of the population (only 93 are listed in tracts 104 and 109), it is interesting to look at their patterns of settlement, family structure, and nativity. Most of the blacks in this area resided in tract 104. Out of 93 blacks listed as living in these areas, sixty-two are members of all-black households. The other thirty-one are listed as living in white households. Most of the blacks living in white households were designated in the Census as servants. There were thirteen black families in tracts 104 and 109, and the average family size was 4.7 or, more accurately, there were four families of five members, two families of three members

and two families of six members. There were some instances of patri-local settlements. If the first and second generations were not living next door to each other, they were living in close proximity. Of 93 blacks, fifty-four were born in Alabama, sixteen in Texas and eight in Missouri. It is interesting to note that in 1880, fifteen years after the Civil War, one-third of the blacks are still listed as servants. However, looking at the family structure, a strong cohesive family unit can be seen.

In looking at community histories, churches and schools often have records that prove to be helpful. However, in a rural situation such as this, schools and churches come and go frequently, and often there are no records even to prove their existence. Because no towns were recognized in the 1880 Census, it is often hard to pinpoint exact locations of various schools that only operated for possibly a year or two. Because parents were required to petition each year for their school, the population fluctuation often caused changes from year to year. Apparently, the school with the greatest longevity in tract 109 was the Prairie Chapel School on the west side of the Elm Fork of the Trinity. The land was donated to Denton County in 1879 to be used for a school house. The building often served as a house of worship also for over 50 years. Fragmentary county school records from 1876, 1878, 1881, 1884-85, 1888, 1889, and 1890 are extant. The information contained within these is limited because detailed records such as names of pupils and attendance were kept by the individual school teachers. The Rippey School lists its mailing address as Bolivar, but appears to have serviced the northwest portion of the project area near the Sullivan settlement along the Elm Fork during this time. Listed only in 1876 and 1878 is the West Community School. Among its trustees were men such as John Peter, A.S. Potter, Burrill Jones and Francis M. Ready who lived in the southwest portion of the project area.

The establishment of Prairie Chapel School in the neighborhood in 1879 may have altered the focal point of the community and caused the demise of the West School. Two schools in enumeration district 109 appeared in 1876, 1878, and 1881 only. Snuffer School had scant documentation, but does bear the name of a family within the project area. Evans School has only the name of its teacher, Miss Ella Johnson who lived in tract 109, which generates speculation that it also may have served pupils living in the project area. In 1885, many new school names appeared in the Denton County records. One such school was Green Valley, which, although located south of the project area, drew a portion of its trustees and students from the project area. The growing prosperity of this decade in response to the arrival of the railroads may have resulted in the abandonment of older school communities.

In tract 104, the Kelso School had the longest lifespan. Located on the eastern border of the project area, this school appeared in the earliest available school records and served its community, including much of the project area, well into the twentieth century. The Jones School trustee list features familiar family names within tract 104, such as Whorton, Edwards, and Wilson, although its exact location is unknown. Because it appears only in the first 3 years of record, it may have suffered the same fate as did Evans and Snuffer. One final school is even more speculative than the others. Listed as "Coster," and appearing only in 1876, it has defied identification. The family names Martin and Matthews, both listed in the Census as living in tract 104, are among the trustees, and the similarity of the spelling to the family and town of Cosner are cause for speculation, but no further documentation is available at this time.

As for early churches in the area, little documentation seems to exist. Bethel Missionary Baptist Church was not established until 1908. Not much information was provided during oral history interviews, either. While churches played important roles

in the communities, it seems as though the roles the schools played in community identification in this area was more important.

Certain patterns in agriculture can be determined, in part, by information obtained from the 1880 Census. Farm size, land tenure, crop, and livestock information help to give a picture of farming life that is unobtainable from other sources. In Census tract 104, out of 232 farmers, 110 owned farms, 30 rented, and 83 were sharecroppers; there were 9 whose status was undetermined. In tract 109, out of 164 farmers, 80 owned farms, 2 rented, and 82 sharecropped. It is possible that the higher rate of ownership in tract 104 denotes an older, more established farming community. Research in the post-1900 era shows that many families first rented or sharecropped until they were financially able to purchase a farm.

The average farm size in tract 104 fell into two categories: the medium size farm, 100 to 200 ac, and the very small farm, 20 to 30 ac. There were forty-six farms that were medium size and fifty-two that were very small farms.

In tract 109, a similar pattern emerges. There are fifty-one farms of 100 to 200 ac. One difference is that there are twenty-three farms that may be considered small farms, with 80 to 90 ac. There are twenty farms that are very small farms.

The breakdown of crops and use of acreage show a slightly different pattern than post-1900 farming patterns. In tract 104, forty farmers tilled 20 ac; eleven farmers tilled 60 ac each; twenty-eight farmers tilled 40 ac; and twenty-one farmers tilled 30 ac. Tract 109 showed similar tilled acres: twenty-three farmers tilled 30 ac; fifteen farmers tilled 25 ac each; eleven farmers tilled 40 ac; and ten farmers each tilled 20 ac.

As for pasture acreage, neither tract had any appreciable amount listed. The people in the post-1900 era usually let livestock graze in their "forested acreage." This pattern could have developed from the pre-1900 era. Forest acreage was listed in both tracts 104 and 109. In tract 104, there were eleven farmers that each had 100 ac of forest land, fifteen farmers had 50 ac, and twelve farmers had 20 ac each. In tract 109, ten farmers each had 10 ac in forest, ten farmers had 40 ac, seven farmers had 5 ac each, and five farmers had 25 ac.

As for livestock, in tract 104, thirty farmers each had two hundred head of livestock, sixty farmers had one hundred head, nineteen farmers each had one hundred and fifty head. In tract 109, seventeen farmers each had two hundred head of livestock, ten farmers had one hundred head, eight farmers had one hundred and fifty head and eight farmers each had three hundred head. In both tracts, farmers were selling some of these livestock, indicating a shift from subsistence farming to profit-making farming. The shift to cash cropping took place gradually, but is identifiable by 1880 in this section of the project area. As for farm equipment, in tract 104, fifty-two farmers had \$10.00 worth of equipment, twenty-seven farmers had \$100.00 worth of equipment, and forty-nine farmers had between \$40.00 and \$50.00 worth of equipment. In tract 109, thirty-seven farmers had \$10.00 worth of equipment, twenty had \$20.00, eight farmers had \$100.00 worth of equipment, and another eight farmers had \$75.00 worth of equipment. Most of the farmers in tract 109 had between \$15.00 and \$30.00 worth of equipment.

Cropping patterns, as in the post-1900 era, show some diversity. Farmers in both tracts grew certain crops for their own consumption, for livestock, or perhaps for trade with neighbors. Fruit trees come under this category as do garden vegetables, oats, and

wheat. More acres of corn were grown in both tracts than any other crop. In tract 109, twenty-one farmers each had 20 ac, twenth farmers had 10 ac, and sixteen farmers had 12 ac in cultivation. In tract 104, thirty farmers each grew 20 ac of corn, thirty-nine farmers grew 10 ac, and fourteen farmers each grew 15 ac of corn.

Cotton, which in the post-1900 era would become the cash money crop, was being grown in both tracts, but not to a large extent. In tract 109, nineteen farmers each grew 10 ac of cotton, twelve farmers grew 15 ac, and thirty farmers grew between 6 and 8 ac of cotton. One farmer in this tract grew 40 ac of cotton, but this was unusual in the 1840s to 1880s time period. In tract 104, there were thirty-two farmers that grew 10 ac of cotton, nineteen farmers that grew 6 ac, seventeen farmers grew 20 ac, and twenty-seven farmers grew between 4 and 5 ac of cotton. Ten farmers grew between 25 and 26 ac of cotton.

The picture of the average farmer that emerges is one of the farmer who was beginning to produce more than that necessary for subsistence by 1880. He planted a diversity of crops: some cotton, corn, oats and wheat. There was a family garden and orchard, and farmers could use their excess production to trade with other farmers, or at developing local urban centers. There were cattle, milk cows, chickens, turkeys, and sheep for livestock in varying numbers. This type of farming does not differ drastically from post-1900 era farming.

The main change in farming in the Competition period is that after 1895-1900, the farmers began growing quantities of cotton as cash crop. By 1880, farmers were probably to the point of expanding their farming operations and were definitely above the subsistence farming level. By 1900, farmers were leasing land to grow their cash crops and expanding their farming operations.

Post-1900 Farming in the Construction Area

The following information was taken from oral history interviews conducted with long-time residents of the testing area: Mr. and Mrs. Bennie Schertz, Mr. and Mrs. A.E. Sadau, Mr. and Mrs. Carl Sadau, Mr. and Mrs. Steve Hester, and Mrs. Billie Barker. The information presented here is topical, corresponding with the oral history interview topics. Oral history interviews in this phase were conducted in September 1981 by Kate Singleton and Jim Renner.

Land tenure was an interesting point to discuss with the informants. The informants often stated that "the young ones sold out and moved." When asked to explain, they stated that usually the second generation of the families who owned the land sold out and moved. This seems to have occurred pre-World War II. Additionally, many of the second generation family members had to lease land because there was not enough of the family farm to go around. Later in the century, when Dallas-Fort Wort Worth airport was built, there was an influx of pilots into the area who bought land and leased it out.

Passing land from one generation to another took several forms. In the case of A.E. Sadau, he bought out his siblings. Billie Barker's father divided up his land; Billie kept hers, while her mother and sister sold theirs. Steve Hester rented the Hester homeplace from his family until they sold the land to the Sadau's.

Leasing and share cropping were frequently used to expand farm operations; however, the definition of share cropping in the construction area is somewhat different than the traditional definition. Share cropping, in this sense, is leasing additional land for one-

third of the crop (or one-fourth of the crop in the case of cotton, because the owner of the land would have to pay for the ginning of his quarter). The type of leasing--cash or crop--depended upon the financial ability of the farmer. The Sadaus, who were moderately well off, cash-leased land. Most people crop-leased land, and in this case, provided their own equipment. There were families, such as the Schertz family, that only leased and did not own land. These people, share croppers in the traditional sense, were a very mobile community. However, many of these people eventually purchased land in this area.

By the turn of the century, cotton had become the primary money crop for the area. Bink Simpson, a typical example, planted all his own land in cotton and planted the land he crop-leased in grains. That way, he would not have to give any of his money crop to the man he leased land from. There were six cotton gins in the area ca. 1900: three at Sanger, two at Pilot Point, and one at Bolivar. Although cotton began to decline somewhat between 1935 and 1945, most people grew some cotton to keep their cotton allotments. By 1945, cotton as a money crop was on the decline. Cotton growing was too labor intensive to be profitable, and large flat tracts of land were needed to make it profitable. Grains, such as wheat, corn, and oats were grown for livestock and for family use. There were mills in both Sanger and Pilot Point.

As cotton growing began to decline and was replaced by cattle ranching, there was a change from wheat and corn to milo and sorghum. Harvest time in the area meant that additional labor was needed on the farms. All the farmers contributed and help also was hired from as far away as Kansas. By the 1940s, custom work and large custom machinery had replaced the farm labor force. As for other crops and farm operations, there were a number of orchards. Most families had orchards with several kinds of trees: peaches, apples, pears, plums and an assortment of berries. There were parts of land in the basic area that were never cultivated. Usually, this land was rugged, heavily timbered and unsuitable for farming. In the project area, there were and still are, a number of small dairy operations. Aubrey Vaughn had a separator. A.E. Sadau, Bennie Schertz, and Steve Hester all had small dairy operations.

Everyone had some cattle, even before cattle became a source of cash income. The calves were sold in Fort Worth. Before 1940, Herefords were raised; in the 1940s, Angus became the popular breed; and in the 1950s and 1950s, an Angus-Hereford mix became the preferred breed. Other livestock raised in the area were hogs, sheep, chickens, and turkeys.

As for farm machinery, most people had very little. The Sadaus and Bink Simpson had more than average and were considered better off financially than most. Bink Simpson had three steam engines and two threshers. A.E. Sadau had a stationary thresher and a F30 tractor. These machines were used by the community during harvest time.

Farm life was fairly simple. There were usually dances held at one of the larger farms like Aubrey Vaughan's. People traded fruit from their orchards and butter and cream among each other. Life revolved around the farm and crop cycles.

When cars came into the area, the transportation net spread to Denton. Billie Simpson Barker talks of always having cars. The Skelton bridge (Site 41DN90) was a main access to Pilot Point. When FM 455 was gravelled and re-routed in the 1920s, and the Skelton bridge fell into disuse, the lower area was cut off from Pilot Point. It became easier to go to Sanger than up to FM 455 and across to Pilot Point.

The concept of the neighborhood was interesting. Steve Hester described the boundaries of Vaughantown as being on the west, the Elm Fork, on the south, McReynolds Road (Cemetery Road), and on the north, FM 455. Neighbors interacted at places such as Bink Simpson's saw mill, at farm dances, and at harvest time. As stated before, there was bartering of crops between neighbors. During the Depression, Bink Simpson supplied neighbors with flour.

There were three churches in the area: Vaughantown (Missionary Baptist), Wesley Chapel, and First Methodist in Green Valley. As for schools, there was Prairie Chapel, Green Valley, and Fairview. Apparently, there were set school districts until schools were consolidated. After that, students either went to Pilot Point or Sanger.

Bink Simpson's saw mill (see site specific description) operated for many years in the project area. It was not run for commercial purposes, but to serve the neighborhood. It was used to cut wood for barns, outbuildings, and fences.

The Depression affected the project area, but farmers had been having hard times since the mid-1920s. Steve Hester said that things just got a little harder. Bink Simpson stored people's grain until enough money was collected to go to the mills, then he distributed the grain to everyone. Most people were able to hold onto their land and, in many cases, just refinanced their payments. A.Y. Krager of Sherman represented a lot of insurance companies. Krager would go in and rebuild or build houses on land that was lost to the insurance companies and resell the land. Bennie Schertz's father bought land from Aetna Insurance Company during the 1930s. This land previously had been owned by Elsie Wilson. Apparently, during the Depression, people in the area moved from place to place frequently. Carl Sadau and Billie Barker said that the government came out and killed cattle. Cotton was bought by the government, and the farmers would plow it under. Billie Barker relates a story that she found a dime and her father, Bink Simpson, took it from her and bought enough bacon to feed the family for a week. During World War II, there were shortages which seemed to rival those of the Depression, according to Billie Barker. Cigarettes, gasoline, rubber, and other products, all were scarce. These shortages caused problems for many farmers.

This area was a close-knit, small farming community whose residents often shared the hardships of farming. When looking at the geneology of the area, the families such as the Mays, Sullivans, Simpsons, Hesters, and Vaughans, are prominent. Some of their descendents remain in this small farming community, still farming or just retired from farming.

Historic Summary

Historic archaeological analysis was conducted to supplement information from the project area historical research and architectural analysis. Three questions were posed to guide the analysis. First, was there a discernible difference in artifact type distributions that might correlate with differing socio-economic levels of the site's historic occupants? Second, could a period or periods of occupation be identified for each site on the basis of the artifacts collected during controlled surface collection, augering, or test excavations? Third, if temporal periods could be established on a site-by-site basis, would mapping the locations of the sites from each period yield information helpful in interpreting the history of the area?

In analyzing the historical archaeological materials collected, there does not appear to be any socio-economic differentiation in the material culture pattern as reflected in the archaeological record. Types of artifacts found at the tested sites were basically

uniform throughout the project area. Few items were found that could be considered luxuries. Some porcelain tableware fragments were found at 41DN77, 78, 79, 81, 87, 94, 105, 111, 112, 113, 116, 125, 198, 200, and 202. Porcelain figurine parts were found including a doll's arm at 41DN76, a doll's foot at 41DN194, a molded, clear glass dog's head at 41DN87, and numerous fragments of a purple molded (pressed glass) bowl or candy dish were found at 41DN94.

Because a comprehensive and detailed analysis of all artifacts was not feasible in the survey phase, artifact types were grouped as described in the methodology (Chapter II). The establishment of temporal benchmarks to date site occupations is given below.

For ceramics, the selection of temporal artifacts was limited to datable whiteware and stoneware. Slipping, glazing, and decorative treatments on these items vary temporally according to their date of invention or period of greatest popularity. Whiteware types included:

- blue feather edge, 1810-1860,
- flow blue transfer, 1840-1860,
- polychrome over transfer, 1870-1900,
- decalcomania, 1880-1930, and
- molding (usually a rim treatment), 1890-present.

Stoneware types found in this area include:

- Albany/glaze (a medium-to-dark brown slip with a glaze), where slip and glaze were applied to the interior or to both the interior and exterior, 1870-1930, and
- a locally produced stoneware that is grey to buff with a salt glaze on the exterior, unslipped or a dark brown (Albany) slip, unglazed, on the interior, 1870-1900, possibly as late as 1930.

A limited number of datable ceramic maker's marks also were collected that could be used to date occupation on a site within a narrower time span, and these were included as well. Denton County is a source of good pottery clay, and potters were known to have been in the general area as early as the 1850s or 1860s, so much of the stoneware found could possibly be dated much more precisely after further research.

Glass colors, caused by the presence of a certain element or elements in the glass, can also be used as temporal indicators. Glass colors used in this analysis include:

- blue-green, pre-nineteenth century-1900-present
- olive, 1815-1885,
- purple or amethyst and
- clear, 1890-present.

Traces of iron oxide within the sand used to produce the glass created a blue-green colored glass. Olive glass is produced by adding iron slag to the glass. Manganese, which had been added to glass as a decoloring agent, caused the glass to turn purple when exposed to ultraviolet rays. Arsenic was added to the mineral mixture in the 1930s producing clear or colorless glass.

Also included was brown glass, a colored glass introduced in the 1930s and still in use and production today. Because of the very early beginning date of blue-green glass and its long time range, and the very late initial date and ubiquitous presence of brown

glass, these colors were considered only as contributing factors in establishing initial settlement or settlement termination dates for site.

Also included among glass temporal indicators were variations in manufacturing techniques:

- molded seamed bottles with hand or tool finished lips, 1881-1903,
- molded seamed bottles with machine-finished lips, 1903-present, and
- opaline or milk glass fruit jar lid liners, 1868-1940.

Types of metal used in temporal analysis included nails, both machine-cut square nails (1865-1910), and wire nails (1890-present), and barbed wire. The first barbed wire was sold at Gainesville in 1875, (Collins 1981:74; Odum 1980, 1:45) but was not manufactured in large quantities for fencing until 1880. According to Grace, the first barbed wire appeared in Green Valley in 1883 (Grace 1944). With the advent of barbed wire, fencing the prairie land became more economically feasible. In 1885, enough barbed wire to fence a section with three strands could be bought for \$400.00 (Odum 1980).

Datable ceramic, glass and metal artifact types collected in the testing phase for each site are shown in Table 4-19. In order to establish a settlement date for each site tested using this information, a set of criteria was established by which a site could be said to have been tentatively occupied. The start of the occupation period was established as 5 years after three or more artifact types present on the site were known to be in use simultaneously (nationally or regionally). For example, if machine cut square nails (1865-1910), fruit jar lid liner fragments (1869-1940), and purple (amethyst) glass (1880-1917) were the three oldest types of artifacts collected for a site, the beginning occupation date would be established at ca. 1885, 5 years after the general introduction of amethyst glass.

To establish a tentative end date for occupation of a site, the following criterion was used. If half or more of the dated temporal components are still in use at the present time, an end date of 1940 was arbitrarily used. If less than half of the selected temporal components extended into the present, an end date of 1930 was used. Table 4-20 shows the testing sites arranged by chronological order using this technique.

After sites were given tentative initial settlement and settlement termination dates based on artifact types present, and arranged chronologically, it was evident that three distinct periods of immigration to and settlement in the construction area may be identified on the basis of these data. The first of these periods extends from approximately 1840-1860. At least one site (41DN78), and perhaps as many as three other sites (41DN79, 41DN87, 41DN108), were initially settled during this period, and then possibly abandoned until the second wave of settlement. This generally coincides with what is known about the project area history to date, and site 41DN78 may be an example of a site that was abandoned either by a Peters Colonist or by a settler during the Retreat from the Frontier period ca. 1858.

A period of more intensive immigration appears to have begun about 1875 and end about 1880. During that period, the settlement of several sites and the apparent resettlement of 41DN78 occurred. After a period of relative inactivity (approximately 1880-1890), another apparently intensive settlement period occurred in the area, beginning around 1895 and extending into the early years of the twentieth century. This is consonant with information obtained from other sources in that the arrival of the railroad to this area is known to have increased the rate of settlement at the start of the Competition

Table 4-19.
Temporal associations of selected artifacts found in tested sites

-
- A. Ceramics
 - A1. feather edge, 1810-1860
 - A2. flow blue transfer, 1840-1860
 - A3. local 1870-1900
 - A4. printed transfer 1870-1900
 - A5. Albany, 1870-1930
 - A6. decal, post 1880-1930
 - A7. molded whiteware, post-1890
 - A8. local, 1870?-1900
 - B. Glass
 - B1. aqua, pre 19th century-1910
 - B2. olive, 1815-1885
 - B3. purple (amethyst), 1880-1917
 - B4. clear, post 1930
 - B5. brown, post-1930
 - B6. jar liner, post-1869-1940
 - B7. tool finished, post-1881-1903
 - B8. machine finished, 1903-present
 - B9. threaded, post 1919
 - C. Metal
 - C1. square nail, 1865-1910
 - C2. barbed wire, 1885-present
 - C3. wire nails, post 1890-present
-

period. In addition to confirming what is already known about the rate of settlement in the area, the temporal periods revealed by this analysis add an additional subdivision, breaking the lengthy Competition period into two segments. This break occurred in other, similar areas, and should have occurred in the project area. Because of the labor intensiveness of cotton cultivation, as cash-cropping cotton cultivation increased in the area, more people should have resided in the area to work in the fields, and an increased difference between the socio-economic levels of sharecroppers and landowners should be evident. According to the available generalized statistics on cotton cultivation in Denton County, this rise in population should have been most pronounced around the turn of the century, and this is at least tentatively confirmed using this testing data.

Plotting the geographic locations of sites by temporal increments yields a pattern that confirms the predicted geographic direction of expanding settlement through time (Figures 4-58 and 4-59). Settlement began about 1840 near the confluence of Isle du Bois Creek and the Elm Fork of the Trinity River. This settlement showed little or no substantial increase until the beginning of the Competition period, when farmstead density in the neighborhoods on either side of Isle du Bois Creek increased dramatically, and settlement began to spread northward. By 1900, the neighborhood north of FM 455 and west of Isle du Bois Creek also had filled in, and density of settlement north of that area was increasing.

These results are encouraging in terms of amplifying our knowledge of the process of growth and development occurring in the project area. As additional information is collected in the further mitigation phases of the project, it should be possible to reconstruct the spread of settlement in each of the project area neighborhoods, and to increase knowledge about how artifact patterns and architectural style reflect historic growth and development on a local, regional, and national level.

Table 4-20.
Chronological listing of tested sites

Site	Beginning Date	Ending Date
41DN78	a 1840 b 1875	1860 1930
41DN77	1875	1930
41DN87	1875	1930
41DN91	1875	1930
41DN95	1875	1930
41DN194	1875	1930
41DN76	1875	1940
41DN94	1875	1940
41DN108	1875	1940
41DN111	1875	1940
41DN113	1875	1940
41DN202	1875	1940
41DN96	1875	
41DN79	1880	1930
41DN81	1880	1930
41DN97	1885	1940
41DN116	1885	1940
41DN110	1890	1940
41DN112	1890	1940
41DN86	1895	1930
41DN88	1895	1930
41DN143	1895	1930
41DN83	1895	1940
41DN92	1895	1940
41DN100	1895	1940
41DN105	1895	1940
41DN106	1895	1940
41DN107	1895	1940
41DN125	1895	1940
41DN128	1895	1940
41DN195	1895	1940
41DN198	1895	1940
41DN200	1895	1940
41DN201	1895	1940
41DN104	1900	1940

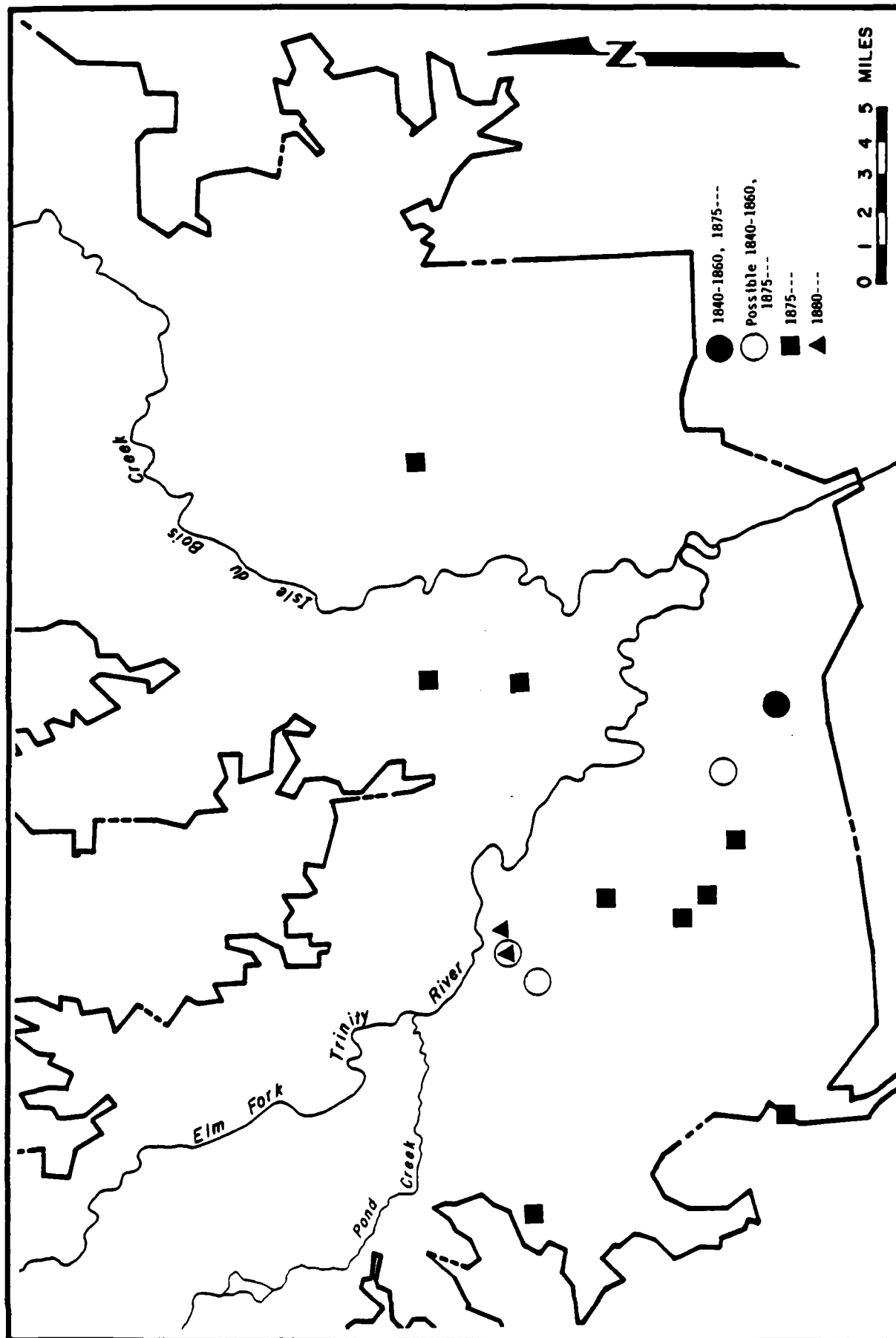


Figure 4-58. Historic settlement expansion from 1840 to about 1885 in the construction area.

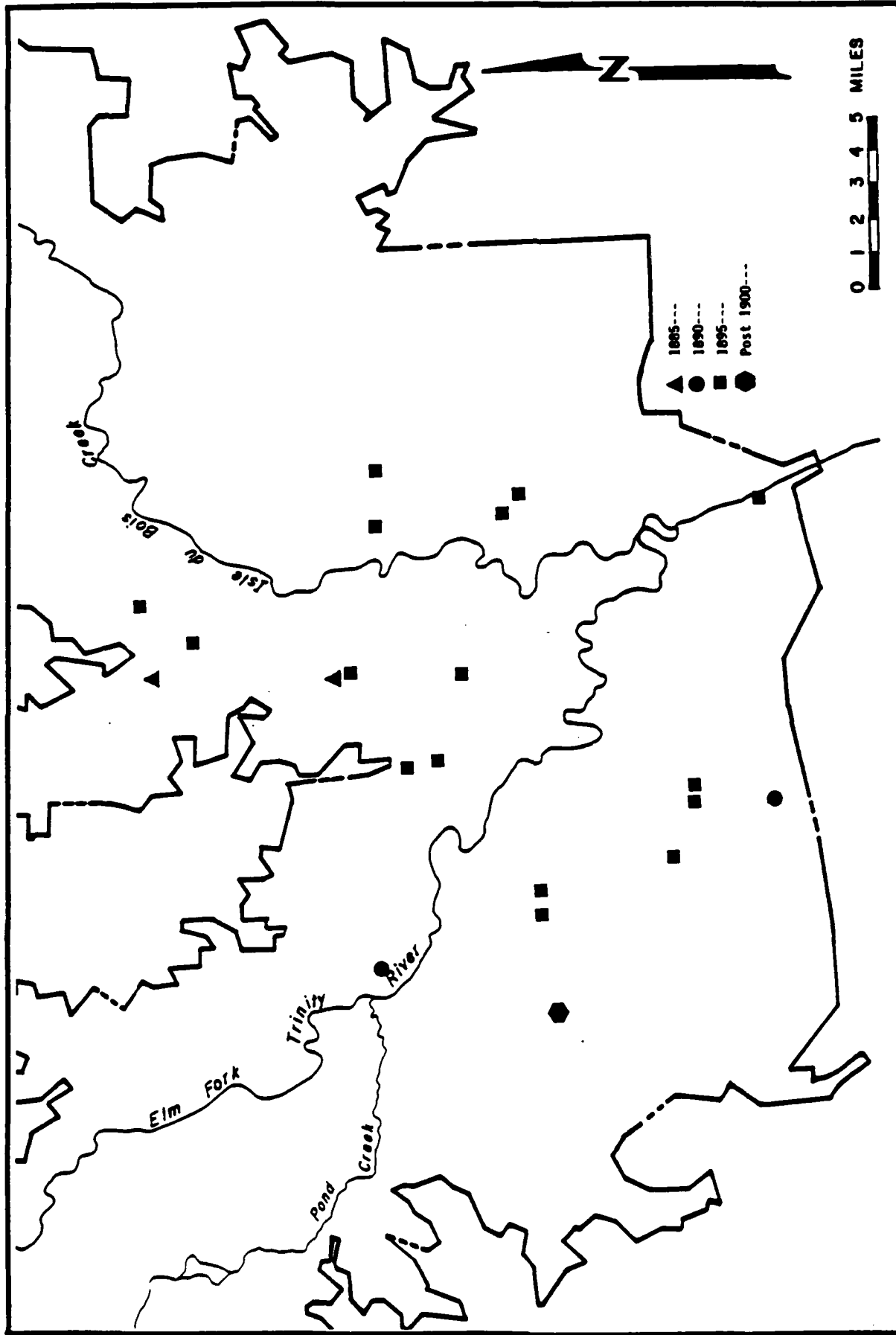


Figure 4-59. Historic settlement expansion from 1885 to post-1900 in the construction area.

V. RECOMMENDATIONS

Introduction

The purpose of the archaeological testing within the construction area of Lake Ray Roberts in north-central Texas was to evaluate the cultural resources to be immediately affected by the dam construction regarding their eligibility for inclusion on the National Register of Historic Places (Advisory Council on Historic Preservation 1980). This information is needed to insure that adequate mitigation (Kaldenberg 1980) of significant resources is completed prior to their loss. It is assumed for this discussion that alternative forms of mitigating the loss of significant cultural resources, such as avoidance or protection (Lipe 1974), are not possible at this stage in project planning. Consequently, investigation (or data recovery) is the only means of mitigating the loss of information that will occur once earth modification begins. The following discussion presents recommendations for all of the recorded cultural resources tested within the Lake Ray Roberts construction area including prehistoric, historic, and standing structure sites in regard to their eligibility for nomination to the National Register of Historic Places. Many sites are excluded from any further consideration, and a recommendation of "no adverse effect" is offered for these resources (Advisory Council on Historic Preservation 1980:17-19).

Prehistoric Site Recommendations

A total of 22 archaeological sites with prehistoric occupations was tested within the Lake Ray Roberts construction area (Table 5-1). Because of the low density of surface and subsurface artifacts, because past land modification activities have essentially destroyed any integrity of site deposits, and in consideration of potential ability to resolve problems in the prehistory of the project area, no further work is recommended for 14 of these sites. Nomination to the National Register is recommended for the remaining 8 sites.

Nomination recommendations are made on the basis of two factors. The first was an evaluation of the condition and nature of preserved subsurface materials at the site. This evaluation was based on consideration of such factors as the degree of historic disturbance, such as plowing, that has occurred on the site, the amount and nature of erosion that has occurred (taking into account site size), and the presence of preserved features.

The second factor was an evaluation of the potential contribution which a site could make to a better understanding of the prehistory of the Lake Ray Roberts area. This judgement often was made independently of the evaluation of a site's present condition, and was based more on the role that site may have played within the regional settlement pattern at any point in time. Table 5-1 presents a list of all prehistoric sites tested along with the estimation of their potential research significance, their archaeological potential, and the recommendations made for further work. As noted above, a site's "Potential Research Significance" as shown on Table 5-1 is based upon an evaluation of the role that site can play in the resolution of research questions regarding the prehistoric development of the Lake Ray Roberts area (Lynott 1981). The "Archaeological Potential" is based on a number of factors including estimated period of occupation, hypothesized function, density of artifacts, depth, and preservation. This column explicitly discusses these factors, instead of simply giving a one-word evaluation, such as "good" or "bad." It is hoped that this will make the process of evaluating the archaeological potential of these sites easier to follow.

Table 5-1.
Prehistoric site recommendations

Site (TARL Number)	Potential Research Significance	Archaeological Potential	Recommendations
41DN79	Medium	Late Archaic and Late Neo-American macroband base camp; possible proto-historic activity(?); possible postholes in sterile deposit; most of site with exception of posthole destroyed by plowing; possibly functionally related to sites 41DN80, 81, and 101.	Nominate to National Register; excavate
41DN80	None	Late Archaic and Late Neo-American microband camp; all of site apparently destroyed by plowing.	No further work
41DN81	High	Late Archaic macroband base camp with some Late Neo-American material; high artifact density; moderate depth; good research potential.	Nominate to National Register; excavate
41DN82	None	Late Neo-American musselling station; totally destroyed by plowing; no depth.	No further work
41DN84	None	Late Archaic hunting camp; no depth; destroyed by plowing.	No further work
41DN85	High	Late Archaic hunting camp; depth but no features found; limited artifact sample; undisturbed condition may not be duplicated elsewhere with sites of this type.	Nominate to National Register; excavate
41DN87	None	Late Archaic seasonal camp; eroded and destroyed; no research potential.	No further work
41DN89	None	Undated lithic workshop; few artifacts; surface only.	No further work
41DN96	None	One surface artifact on historic site.	No further work
41DN98	None	Undated lithic workshop; surface only; few artifacts.	No further work
41DN99	High	Early Neo-American, Late Neo-American, possibly Late Archaic seasonal microband camp; depth and intact stratigraphy; high artifact density; very high research potential.	Nominate to National Register; surface strip, and excavate
41DN101	High	Late Archaic musselling base camp; single component site with depth and good preservation and high artifact density.	Nominate to National Register; excavate
41DN102	High	Base camp: Middle Archaic, Late Archaic, Early Neo-American, Late Neo-American; some stratified deposits, burials, features, good preservation; high artifact density; good research potential.	Nominate to National Register; excavate
41DN103	High	Late Archaic musselling base camp; in situ hearths; single component site; good possibility for faunal preservation; good research.	Nominate to National Register, backhoe, and excavate
41DN112	High	Early and Late Neo-American musselling base camp; in situ features; living surface; undisturbed; stratified; good research potential.	Nominate to National Register; excavate
41DN114	None	Late Archaic and Early Neo-American lithic workshop; no preserved depth; eroded artifacts; small sample.	No further work
41DN115	None	Late Archaic and Early Neo-American seasonal camp; eroded surface, no depth; small sample.	No further work
41DN197	None	Late Archaic and Early Neo-American musselling camp; few artifacts noted, but high density recorded by SMU; no evidence of any depth or preservation.	No further work
41DN199	None	Late Archaic musselling camp; few artifacts noted; flakes in eroded gulley; no depth; no buried horizon.	No further work
41DN201	None	One flake on historic site; no buried material.	No further work
41DN217	None	Late Archaic and Late Neo-American seasonal microband camp; low artifact density; partially eroded, but still containing buried artifactual material; good potential for clarifying Late Archaic adaptation in southern most portion of project area, but research potential believed duplicated by 41DN99.	No further work
41DN219	Low	Undated lithic workshop; low artifact density; no depth; similar to surface workshop site 41DN89.	No further work

41DN79, 41DN81, and 41DN101

These three sites occupy the same terrace edge, south of a small, unnamed slough which flows eastward into the Elm Fork of the Trinity. Terrace occupation commenced during the Middle Archaic period as evidenced by the surface site of 41DN80, and continued through the Late Archaic period at 41DN81 and 41DN101, and into the Neo-American period at 41DN79 and 41DN81, with the tentative suggestion of an early historic Indian occupation at 41DN79. This terrace was apparently a favored location for seasonal musselling camps beginning in the Late Archaic, and moving west along the ridge with time. Sites 41DN81 and 41DN101 show relatively deep cultural deposits with high artifact densities.

Site 41DN79 shows evidence for a later occupation through some preserved deposits on the northern margin of the site, and what appear to be preserved postholes discernible below the plow zone in the main portion of the site. 41DN81 and 41DN101 demonstrate excellent shell and bone preservation with good potential for flotation or water screening recovery (Watson 1976; Struever 1968a; Limp 1974) of micro-artifactual remains (Table 5-2). Both of these sites can provide important data on subsistence (Ford 1979; Smith 1979; King and Graham 1981) and technological changes within the long period of the Late Archaic. In contrast to this, the Neo-American occupation of 41DN79 should provide material to compare with that from 41DN81 and 41DN101, which will generate valuable data on the differences between the Archaic and Neo-American utilization of the same resource area. The terrace containing these sites provides a unique opportunity to accomplish these goals without the danger of mixed assemblages, as is often a problem with stratified multi-component sites in north-central Texas.

Table 5-2.
Flotation potential: construction area sites

Site	No. of Samples	Materials recovered							
		Bifaces	Flakes	Ceramic	Glass	Metal	Other	Bone	Charcoal Shell
41DN77	7		8	1	16	21		+	+
41DN78	1			8		27		+	+
41DN80	3		5						+
41DN81	3		32		15	12	1	++	+
41DN87	9		3	11	26	70	9	+	++
41DN91	12		1	26	109	174	4	+++	+++
41DN97	6		9		12	14	2	+	++
41DN99	5		19						+
41DN101	12	1	12		1			+++	++
41DN102	10		35			+		+++	+
41DN103	10		10					+	+
41DN108	3					7			+
41DN111	4				3	5			+
41DN112	13	3	112					++	+++
41DN116	8							+	+
41DN202	3								+

KEY:

: frequency of material
 + : present in low abundance (1-25)
 ++ : present in moderate abundance (26-50)
 +++ : present in great abundance (51+)

In consideration of the close association of these four sites, it is recommended that the entire ridge, from the western limits of 41DN79, to the eastern limits of 41DN101, be nominated as a National Register District.

Site 41DN79 is also important in light of its high potential for clarifying early historic settlement and growth patterns in northern Denton County. A large sample of historic artifacts from this site would permit finer temporal control and permit the completion of the settlement history for this portion of north-central Texas.

It is recommended that the mitigation of these sites be accomplished through block excavation (Struever 1968b) at 41DN81 and 41DN101, and shallow exposure of posthole patterns coupled with deep penetration of the historic deposits on the northern margin of 41DN79. It is recommended that a series of randomly-placed test pits be excavated in both 41DN81 and 41DN101 to locate and then uncover buried features. Flotation of the sediments from these two sites should be routinely conducted, and a geomorphologist should be available for evaluation. The area surrounding Test Unit 2 at 41DN79 should be greatly enlarged to reveal the posthole pattern, and several deep pits should be excavated on the northern edge of the site for the purposes of recovering a larger sample of historic artifacts.

41DN85

This site originally was classified as a hunting station on the basis of the small surface artifact assemblage, and the results of the testing do not disagree with this view. Testing has shown this site to be larger than initially believed, about 0.44 ha, with subsurface deposits up to 70 cm deep. The test pits, together with the results of the augering program at 41DN85, indicate that the site is relatively undisturbed with a differential distribution of artifacts across the site. While no preserved features were found by testing, the undisturbed nature of the deposit and the internal structure of the site suggest that features should exist. Although the sample of diagnostic material is small, all indications are that 41DN85 is a single component Late Archaic site. As such, it will provide valuable data on upland resource extractive patterns of this period, to contrast with the bottomland patterns as exhibited by sites such as 41DN81 and 41DN101. The degree of preservation exhibited by 41DN85 is unusual for the project area in general, and one which may not be matched elsewhere in the entire lake area. As a result of these considerations, it is recommended that 41DN85 be nominated to the National Register of Historic Places.

It is recommended that a series of randomly located test pits be excavated across the site for the purpose of locating excavatable features and midden deposits. Once such features and deposits are located, these areas should be intensively excavated. Flotation recovery should be routinely undertaken, along with a geomorphological examination of the site sediments.

41DN99

This site originally was typed as a series of overlapping seasonal microband campsites spanning the length of the Neo-American period, with possible occupation during the Late Archaic. Testing has failed to discount this model but has revealed the presence of relatively deep, stratified deposits with high artifact densities in the southern margin of the site. The site has a high potential for providing answers to problems regarding Neo-American occupation along Isle du Bois Creek, and its relation to that along the Elm Fork. 41DN99 should provide artifactual data comparable to that from 41DN102 and 41DN112 and will allow regional comparisons during the Neo-American period. It

should also provide an examination of development within the lower Isle du Bois Creek area from the Archaic to the Neo-American. In consideration of the high research potential of 41DN99, it is believed that the site should be nominated to the National Register of Historic Places.

It is recommended that the investigation of 41DN99 initially involve a series of exploratory backhoe trenches for the dual purpose of identifying areas for block excavation, and to allow a geomorphological study of the relationship of the terrace remnant, the floodplain, and the cultural deposit. Based on the results of this trenching, large excavation areas should be opened up for the purpose of exposing buried features and high density midden areas.

41DN102

Testing indicated that this site functioned as an Archaic and Neo-American base camp. Although the site area has been affected severely by gravelling operations, much of the site remains intact. The site appears to have an in situ Archaic component as evidenced by the five individuals buried at the site, and their association with an Elam point.

Excavation showed that the site is stratified, with the Archaic component overlain by Neo-American deposits. The Neo-American component may be less well preserved than the Archaic assemblage because of recent surface alteration in the landscape. Nevertheless, the potential exists for an examination of the adaptive changes during the Archaic and Neo-American periods. Although the evidence indicates that the Archaic component represents a base camp, the Neo-American occupation may reflect a less intensive use of the area.

The wide range and amount of artifactual debris retrieved from the site, coupled with the presence of in situ burials, indicates an intensive occupation over an extended period of time. The camp site is significant for addressing the range of activities performed at a central place in a settlement system. At the inter-site level of analysis, the site should provide the yardstick by which occupation intensity can be measured. As a result of the above considerations, it is recommended that 41DN102 be nominated to the National Register of Historic Places.

It is further recommended that 41DN102 be investigated using block excavation. Initially, all spoil dirt existing on the site should be carefully removed. This will allow the excavation of the area of the site south of the locations of Test Units 6, 7, and 8. In addition, it is recommended that an exploratory backhoe trench be placed along the southern edge of the terrace on which the site is located. This will provide a better understanding of the nature of the cultural deposits in this area and will guide the location of excavation blocks to the area or areas of preserved Neo-American deposits. All sediments should be either water-screened or floated for the recovery of faunal, floral, and micro-artifactual remains. A geomorphological study of the site should be carried out, and a large series of radiocarbon dates run, if possible, in order to date the entire site sequence.

41DN103

Testing indicated that this site is a Late Archaic musselling camp. The site extends into unplowed areas and the deposit is undisturbed. Excavation showed that the deposit extends from the surface to a depth of 85 cm. A hearth was observed at a depth of 64 cm below the surface. This indicates that undisturbed features are present and.

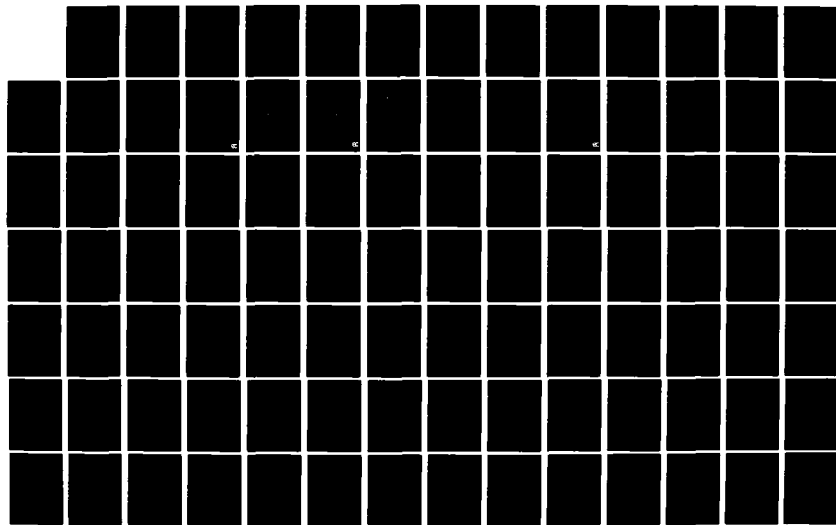
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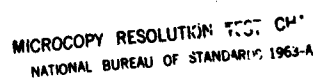
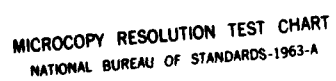
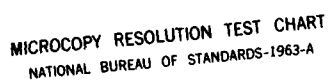
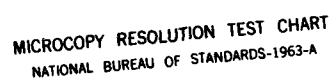
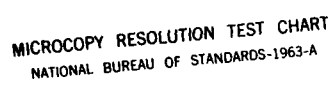
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because of their depth, may also be undisturbed in the plowed portion of the site. The presence of bone and shell from the excavation units is evidence of good ecofactual preservation. Dating of this site is based on the presence of one Archaic projectile point found at a depth of 64 cm below the surface. Given the large amount of material recovered from this site through excavation, and the large amount of material exposed on the surface by plowing, it seems likely that if the site had a Neo-American component, evidence of it would have been observed. Because 41DN103 is a single component Archaic site, and because it exhibits good preservation, it will provide valuable information on floodplain subsistence strategies for this period. In addition, the site location in the floodplain is unusual for the project area. As a result of the above considerations, it is recommended that 41DN103 be nominated to the National Register of Historic Places.

It is suggested that investigation of 41DN103 involve several exploratory backhoe trenches to guide the location of large block excavations. Backhoe trenches are favored over test pits in consideration of the relatively large amount of material requiring removal in order to expose the occupation level. Backhoe trenching would also allow a geomorphological examination of the floodplain and clarify the present dynamics of floodplain deposition. It is also recommended that the area around Test Unit 3 be opened by hand excavation to expose the remaining portion of Feature 1, and to search for other in situ material. Flotation recovery and water screening should be undertaken in order to increase the faunal sample, to gather a floral sample and recover micro-artifactual material.

41DN112

Testing indicated that 41DN112 is an Early and Late Neo-American musselling base camp. The numerous fragments of bone and shell recovered from the excavation units suggest not only good preservation but also good potential for examining subsistence strategy for this time period. All of the temporally diagnostic material recovered is Neo-American. There is some evidence to suggest that the site is stratified into Early and Late Neo-American components. The test pits revealed the presence of possible living surfaces and hearths. Disturbance to the cultural deposits seems minimal. The good preservation and undisturbed nature of this site provide an excellent opportunity to examine the exploitive strategies and site lay-out of a Neo-American musselling base camp. This information can be compared and contrasted with 41DN103, an Archaic musselling base camp. The stratified nature of the deposit can be examined with the possibility of revealing differences between the Early and Late Neo-American periods. As a result of these considerations, it is recommended that 41DN112 be nominated to the National Register of Historic Places.

It is recommended that 41DN112 be excavated, with a large block opened in the area of Test Unit 1 to expose the remainder of the fire-cracked rock area. A series of test pits and auger holes should be placed throughout the site to locate other areas with in situ features and midden deposits. Water screening and flotation recovery should be undertaken to gather a floral and faunal sample and micro-artifactual remains. A special effort should be made to recover datable charcoal in order to resolve the problem of Neo-American chronology in north-central Texas. A geomorphological study should be conducted of the site and its environs.

Historic Site Recommendations

A total of 63 cultural resource sites with historic domestic remains were evaluated and tested for subsurface deposits within the construction area of Lake Ray Roberts,

including both archaeological and standing structure sites. Of these, 50 sites are recommended as requiring no further archaeological work because of the condition of the site deposits, the low density of artifacts, or a low research potential (Table 5-3). Nomination to the National Register of Historic Places is recommended for 13 sites. The remaining 50 historic sites were carefully evaluated on the basis of present occupation and degree of surface remains. A recommendation of no adverse effect is suggested in regard to the archaeological value of the sites, although it should be noted that in several cases, sites do have architectural value.

As was the case for the prehistoric sites, recommendations for inclusion on the National Register for the historic archaeological sites depends upon: (1) the potential of the site for providing data relevant to the research problems relating to the historic occupation of the Lake Ray Roberts area; and (2) the current condition of the site.

As a result of initial historical research in the survey phase, several hypotheses have been developed that may be tested using historic archaeological data in conjunction with site-specific historical research. These research questions include the following concerns.

First, is there a difference between material culture artifacts used during each of the historic periods? Does early occupation correlate with later wealth and status? To provide information on these aspects of historical development, the tentative historical periods assigned to the sites were used to select sample sites from each period. Second, are there differences in artifact patterns or temporal occupancy of the sites based on natural features such as elevation or proximity to running water? Third, does distance from a contemporaneous urban center or rural supply center make a difference in artifact patterns? Sample sites with good archaeological potential were selected in a roughly uniform distribution to provide information about these concerns. Because sites judged to have good archaeological potential do not occur in all parts of the project area, some sites judged to have fair potential were included in this sample. Fourth, is there a difference in artifact patterns in the Cross Timbers and Grand Prairie regions? A concentration of adjacent sites with good potential from each of these regions was selected in order to explore this question. An attempt was made to pick sites wherever possible that would have relevance to more than one of these areas of investigation.

41DN78, 41DN79, 41DN87, and 41DN108

These four sites are recommended for nomination to the National Register of Historic Places on the basis of their research potential for clarifying the pattern of settlement spread in northern Denton County during the late nineteenth century. It is recommended that comprehensive, controlled surface collections be made at all four sites for the purposes of refining the history of occupation and examining the internal variability of each site.

Information on period of occupation and artifact distribution from 41DN87 should be particularly rewarding in light of the fact that virtually no pre-twentieth century information was identified by historical research on this site. The archaeological data would therefore fill in an important gap in the historic documents about this site.

It should also be noted that HABS measured drawings and photographs are recommended for 41DN87, including the house, the oldest barn, and the church which has been moved to Gribble Springs (Skinner et al. 1982). In addition to the measured drawings of these most important structures, measured plans and extensive documentary photographs are recommended for the remaining structures on the site.

Table 5-3.
Historic archaeological site evaluation and recommendations

Site (TARL Number)	Potential Research Significance	Archaeological Potential	Recommendations
41DN76	None	Moderate surface scatter of artifacts; eroded and apparently heavily disturbed with no depth; root cellar with little secondary trash; fair.	No further work
41DN77	Needed for uniform distribution	Moderate surface scatter of artifacts; partially eroded some possible surface disturbance; root cellar with large amount of both primary and secondary trash; good.	Excavate
41DN78	Needed for temporal refinement	Dense surface scatter in plowed field; almost entirely disturbed; some depth; no features; fair.	Collect
41DN79	Needed for temporal refinement	Moderate surface scatter in plowed field largely largely disturbed; some depth, but mixed; fair.	Collect
41DN81	None	Dense surface scatter of artifacts; almost completely disturbed by plowed field and eroded road; moderate amount of depth but almost completely mixed; no.	No further work
41DN83	None	Standing recent structure, with sparse surface scatter; surface artifacts largely eroded; no buried deposits, no trace of earlier occupation; no.	No further work
41DN84	None	Cluster of inhabited, recent standing structures; no surface artifact scatter; no trace of earlier occupation; no.	No further work
41DN86	None	Moderate surface scatter of historic artifacts; presumably dump; no depth; no features; plowed and disturbed; no.	No further work
41DN87	Needed for temporal control	Vaughtantown (Cosner): cluster of five sparse to very dense surface scatters; three in plowed fields; two around modern buildings; depth generally 10-15 cm; no features; moderate to heavy disturbance; fair.	Collect
41DN88	None	Moderately heavy surface scatter; partially eroded; dump site; unplowed but no great depth; no.	No further work
41DN91	Needed for uniform distribution	Sparse surface scatter of artifacts; largely uneroded and unplowed; two wells, root cellar with large amount of trash fill, plus trash pit to southwest of house site; good.	Excavate
41DN92	None	Moderate surface scatter of artifacts; one modern shed; one collapsed outbuilding; one root cellar full of modern bottles; partially eroded and heavily disturbed by modern activity; no trace of early occupation; poor.	No further work
41DN94	None	Sparse historic artifact scatter; minimal disturbance; shallow depth outside root cellars; large amount of secondary trash within root cellar; structure drip line and depressions poor.	No further work
41DN95	None	Moderately dense surface scatter; minimally eroded; no discernable depth; no features other than stone-lined.	No further work
41DN96	None	Sparse surface scatter of artifacts; largely uneroded and undisturbed, but minimal depth; no features; poor.	No further work
41DN97	Needed for both uniform distribution and regional comparison.	Sparse surface artifact scatter; largely uneroded; two root cellars; one of which contains moderate amount of trash; plus one shallow trash pit; partial stone foundation; good.	Excavate

Table 5-3. (Cont.)

Site (TARL Number)	Potential Research Significance	Archaeological Potential	Recommendations
41DN100	None	Moderately dense surface scatter; no features; not eroded but no evidence of buried deposits; poor.	No further work
41DN104	None	Very sparse surface scatter; largely destroyed by plowing; some subsurface material but not much; no features; no.	No further work
41DN105	None	Moderately dense surface scatter; bulk of site disturbed by plowing; limited area with indications of depth; no features; probably disturbed by recent occupation; poor.	No further work
41DN106	None	Standing structure complex with sparse artifact scatter; no subsurface features; shallow depth throughout area but nothing other than recent material; poor.	No further work
41DN107	None	Standing structure complex with no discernable artifact scatter; several filled in root cellars - one with artifacts; small amount of material with depth behind house; good.	No further work
41DN108	Needed for temporal control	Heavy scatter of artifacts; largely destroyed by plowed field; two collapsed structures; well; limited area with shallow depth to north of plowed field; fair.	Collect
41DN109	None	Moderately dense surface scatter; site entirely within plowed field; no apparent depth; no subsurface features; no.	No further work
41DN110	Needed for uniform distribution	Very sparse surface scatter; largely undisturbed pasture; stone house foundation; well; two depressions - one of which is root cellar full of secondary trash; scattered areas with subsurface artifacts outside features; good.	Excavate
41DN111	Needed for uniform distribution	Moderately dense surface scatter of artifacts; uneroded pasture; slightly terraced; well, and trash-filled depression; about 1/2 site area shows shallow depth; good.	Excavate
41DN112	None	Standing, occupied recent structure complex on earlier site; greatly disturbed by modern occupation; heavy surface scatter; no.	No further work
41DN113	None	Standing, abandoned farm house; collapsed root cellar; heavy artifact scatter but largely in plowed field; area outside field undisturbed but no indications of depth outside field; artifacts appear relatively recent; limited.	No further work
41DN116	Needed for uniform distribution and regional comparison	Moderate artifact scatter associated with structure drip-line outline and root cellar; uneroded pasture; little depth; deep root cellar with moderate amount of secondary trash fill; good.	Excavate
41DN118	None	Large, standing structure complex; presently occupied; uneroded but disturbed; little evidence of earlier artifactual material or features; poor.	No further work
41DN119	None	Collapsed recent structure with outbuilding; some scattered recent artifacts; usual amount of depth; uneroded and undisturbed; poor.	No further work
41DN121	None	Cluster of standing outbuildings; no indications of archaeological deposits of any kind; no.	No further work
41DN123	None	Cluster of modern, inhabited farm buildings; no indications of archaeological deposits of any kind; no.	No further work

Table 3-3. (Cont.)

Site (TARL Number)	Potential Research Significance	Archaeological Potential	Recommendations
41DN124	None	Cluster of modern inhabited farm buildings; site of 1900+ farmstead; apparently destroyed by more recent construction; no.	No further work
41DN125	None	Abandoned farmstead with collapsed outbuildings; 1900+ occupation site; small amount of subsurface artifacts, but no subsurface features; poor.	No further work
41DN126	None	Abandoned school foundation; uneroded and relatively undisturbed; scarce historic material; very little depth; poor.	No further work
41DN128	None	Standing vacant structure and cluster of outbuildings; moderate artifact scatter; some areas of 25 cm depth; no observed root cellar depressions; fair.	No further work
41DN129	None	Cluster of presently occupied farm buildings; 1900+ occupation in area, but no trace of archaeological deposits; no.	No further work
41DN131	None	Modern, occupied farm building cluster; dense and large artifact scatter, but largely recent in appearance; relatively uneroded; no subsurface archaeological features; fair.	No further work
41DN132	None	Cluster of abandoned farm buildings; relatively uneroded; sparse scatter of artifacts with some depth; nothing to indicate 1900+ occupation; no subsurface archaeological features; poor.	No further work
41DN133	None	Standing, abandoned structures; no noticeable surface scatter; relatively undisturbed; no trace of archaeological deposits; no.	No further work
41DN136	None	Series of standing farm buildings; no noticeable artifact scatter; no trace of 1900+ occupation; no.	No further work
41DN137	None	Single standing outbuilding; no associated artifacts or archaeological features; no.	No further work
41DN139	None	Single frame outbuilding unassociated with any noticeable archaeological deposits; no.	No further work
41DN140	None	Cluster of occupied buildings; no noticeable archaeological remains; no.	No further work
41DN141	None	Cluster of occupied farm buildings; no data on archaeological features, but site occupied in 1917; fair.	No further work
41DN142	None	Cluster of standing outbuildings; collapsed building and root cellar depression, probably with trash; moderate artifact scatter; partially eroded; good.	No further work
41DN143	None	Cluster of standing buildings; moderate artifact scatter; uneroded; no subsurface features; some depth to artifact distribution; fair.	No further work
41DN146	None	Standing log building; sparse artifact scatter with almost no depth; partially eroded; no subsurface features; poor.	No further work
41DN194	Needed for uniform distribution	Large surface scatter; uneroded pasture; possible trash pit depression; burned sheet midden; good	Excavate
41DN195	None	Sparse artifact scatter with many brick; partially eroded; no subsurface features; poor.	No further work

Table 3-3. (Cont.)

Site (TARL Number)	Potential Research Significance	Archaeological Potential	Recommendations
41DN196	None	Standing structure surrounded by very sparse artifact scatter; undisturbed; root cellar with much trash; no depth elsewhere; fair.	No further work
41DN198	Needed for regional comparison	Large cluster of abandoned buildings; moderately dense artifact scatter noted; no subsurface features; apparently large area with moderate depth; good.	Excavate
41DN200	None	Moderate artifact scatter; scattered foundation stones; undisturbed; root cellar with artifact content; poor.	No further work
41DN201	None	Moderately dense surface artifact scatter; partially deflated in present pasture; apparently no subsurface features and no depth to artifact distribution; no.	No further work
41DN202	Needed for regional comparison	Moderate surface scatter; undisturbed; no subsurface features noted; buried layer apparently resulting from burned structure; many artifacts; good.	Excavate
41DN213	None	Collapsed structural remains; dense artifact scatter; undisturbed; no subsurface features noted; shallow depth likely; fair.	No further work
41DN214	None	Sparse artifact scatter; no structural or subsurface remains; partially eroded; poor.	No further work
41DN216	None	Cluster of standing structures; large artifact scatter; no subsurface features; undisturbed; poor.	No further work
41DN218	None	Large artifact scatter; partially eroded; no structural or subsurface remains; poor.	No further work
41DN220	None	Sparse artifact scatter with possible filled-in well; no subsurface features; poor.	No further work
41DN221	None	Moderate surface artifact scatter; close to modern outbuildings and possibly disturbed; no subsurface features noted; poor.	No further work
41DN222	None	Sparse surface scatter; possible root cellar depression or trash pit; presumed trash fill; no structural remains; fair.	No further work
41DN223	None	Cluster of abandoned structures; no artifacts or subsurface features noted; fair.	No further work

41DN77, 41DN91, 41DN110, 41DN111, and 41DN194

These five sites are deemed to be potentially eligible for nomination to the National Register of Historic Places on the basis of their research potential and their ability to provide answers to several historic research problems. These sites have been recommended because they provide a roughly uniform geographic distribution throughout the project area. Site-specific investigation of these sites will provide case studies that will allow the assessment of the accuracy of the project area history, and provide additional information on neighborhood structure. They also will provide information pertaining to individual decision-making about construction (or choice) and use of certain types of material culture items in everyday life in the little known late nineteenth and early twentieth-centuries in north-central Texas.

It is recommended that each of these sites be surface collected, and all structural features be excavated.

41DN97, 41DN116, 41DN198, and 41DN202

These four sites are recommended for inclusion on the National Register of Historic Places based on their research potential. These sites will provide data for an in-depth culturo-geographic study. By choosing sites in a small neighborhood area in the Cross Timbers, and another similar group on the Prairie, hypotheses about differences in growth and development and material culture patterns between the two regions may be tested.

It is recommended that each of these sites be surface collected, and that all structural features be excavated.

For all investigated sites, historic archaeological remains were subjected to more rigorous analytic procedures than was possible in the survey phase. Detailed analysis of all available temporal markers have enabled a site's occupation to be more finely dated. The information thus gained about temporal periods and artifacts can be used to formulate questions for additional oral history interviewing.

In the case of historic archaeological sites, historic research could be concomitant with the fieldwork, reconstructing the site history, but ideally should be done in advance of the field investigation because documentary and oral history research often reveals the presence of features not visible on the surface. In addition, as mentioned above, second interviews should be conducted with some informants to assist in interpreting the material evidence collected from the sites.

Standing Structure Site Recommendations

Ten standing structure sites have been recommended for inclusion on the National Register of Historic Places on the basis of their historical and architectural significance (Table 5-4).

In a region such as north-central Texas, where little is known about the past historical cultural landscape, the National Register criteria of eligibility are difficult to apply, particularly the criteria concerning "typicality" or "representativeness." No systematic inventories of "ordinary" buildings are available from which to judge the significance of standing buildings. The criteria used for this study then, assume for purposes of evaluation that if a type is the only one of its kind in the area, it is unusual and therefore significant. Likewise, if there are multiple examples of a type in the area, the best example of the type is deemed significant.

Four kinds of mitigation strategies are recommended individually or in combination for standing structure sites: measured drawings, measured plans, photographic documentation, and site-specific historical research. The specific recommendations for each site are summarized in Table 5-4. "Measured drawings" is used here to mean architectural drawings executed in accordance with Historic American Buildings Survey (HABS) standards and procedures (McKee 1970). A full set of HABS drawings includes at least a site plan, elevations of at least the front, rear, and side facades of the major structure, elevations or perspective drawings of the historic outbuildings on the site, and measured plans for the main structure. "Measured plans" is used here to mean floor plans of the major structures and a site plan drawn to scale from field notes, with distances measured in both feet and inches and metric units. "Photographic documentation" means duplicate photographs using color slides and black and white 35 mm negatives on medium or fine-grained film and processed according to archival

standards. "Site-specific historical research" includes the archival and oral history research necessary to reconstruct the evolution of the farmstead through time, dating the buildings, and determining what structures were present during each historic period; determining who lived there and when, and who built the buildings; collecting folklife information about daily life on the site from people familiar with the site during the late nineteenth and early twentieth centuries; and collecting physical descriptions of the buildings and information on their alterations and additions. Archival research includes both a secondary literature search for references to the site or those persons connected with it, and a search of primary records such as Population and Agricultural Censuses and deed, tax, and probate records.

Table 5-4.
Historic standing structure sites recommended for mitigation

Site number	Measured drawings	Measured plans	Photographic documentation	Site-specific historic research
41DN83	X		X	X
41DN87	X		X	X
41DN106		X	X	X
41DN107		X	X	X
41DN118		X	X	X
41DN143		X	X	X
41DN146	X		X	X
41DN196	X		X	X
41DN198	X		X	X
41DN223		X	X	X

In the case of standing structure sites, historic research and oral history interviewing should be done prior to beginning on-site documentation. The information thus collected will provide an increased sensitivity on the part of the architectural crew in looking for details of alterations, variations in materials and finishes, and in reconstructing color schemes and activity spaces as they changed through time on the site.

Wherever possible, significant structures should be preserved as part of the mitigation strategy for individual sites. Acquisition by local or regional museums and/or adaptive reuse as park buildings is encouraged and should be actively pursued.

A complete description of standing structures and their significance is contained in the previous report on cultural resources at Lake Ray Roberts (Skinner et al. 1982). For further information and illustrations of these sites, the reader is referred to the former document.

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APPENDIX I

Results Of Archaeology Magnetometer Survey At 41DN99, 41DN102, and 41DN112

by

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Introduction

In May, 1981, the Archaeology Program of the Institute of Applied Sciences, North Texas State University conducted a magnetometer survey at three prehistoric sites in the proposed Lake Ray Roberts area. The work was done under subcontract with Environment Consultants, Inc. of Dallas, Texas (the prime cultural resources contractor with the Fort Worth District Corps of Engineers). The sites studied were 41DN99, 102, and 112. The purpose of the research was to identify the presence of magnetic anomalies at the sites which might be indicative of buried cultural features.

Micromagnetic surveying constitutes one of the testing procedures available to archaeologists. Prehistoric sites have hearths comprised of accumulations of fire-cracked rock. If the burned rock is sandstone, it will be magnetic even without firing. While the process of detrital remnant magnetization allows only partial alignment of magnetic grains, firing greatly enhances the permanent magnetization. During firing, the magnetic grains realign their magnetic dipoles in the direction of the earth's permanent magnetic field. This process is called thermoremanent magnetization (Aitken 1974).

Research Methodology

The magnetometer survey was accomplished using a Geometrics portable proton precession magnetometer. The proton precession magnetometer measures the strength of the earth's magnetic field. Distinctive disturbances or variations in the strength of that field, called "anomalies," can be caused by geological formations, man-made structures, as well as by ferrous objects (Breiner 1973). While the magnetometer can provide the location of magnetic anomalies, it does not allow for the direct identification of the cause of the anomaly.

Field Survey

Survey blocks were selected for each site based on the surface distribution of artifacts and results of 1 x 1 m test squares previously excavated during the initial testing period. The exact locations, orientation, and size of the survey blocks were determined by the excavator. It was planned to enlarge the survey areas at sites 102 and 99, but the expansion was not possible because of inclement weather.

Survey methods included setting the station spacing at 1 m, optimizing the sensor height, establishing a base station for recording diurnal variation, and using a metal detector to eliminate effects of modern trash. The sensor height was adjusted to be as close to the ground as possible while providing a maximum noise level of ± 1 gamma. The selected sensor height was 1 m above the surface of the ground.

The spacing of the grid was set at 1 m intervals. This distance was chosen to maximize the probability of locating small buried cultural features such as fire hearths. A closer grid spacing would have provided better resolution, but would not have been as cost effective.

The survey procedure consisted of taking three magnetometer readings at each survey point on the grid. If differences in the readings occurred, an average reading was used. The magnetometer reading for each station was recorded on a gridded survey form representing the survey area. Control station readings were taken approximately every half hour to record any daily variation in the earth's magnetic field.

Research Results

The earth's magnetic intensity varies throughout the day. Generally, the magnetic field intensity decreases during the morning, then increases throughout the afternoon. The variation is caused by sunspot activity, solar wind variations, atmospheric tides, and other factors which are not well understood. This diurnal variation must be measured and used as a correction factor to obtain high sensitivity during a magnetometer survey. The variation of the earth's magnetic field is measured by repeating magnetic readings at specified control stations during the survey (Breiner 1973:12).

After collecting the data in the field, the time variations must be eliminated. All of the control station readings are adjusted to a constant value, then all the magnetic readings are adjusted. The constant value selected was the value of the highest control station reading. The other readings were adjusted by the appropriate amount to compensate for the recorded diurnal variation.

When the final corrected readings were available, a contour map was constructed to provide a basis for identifying magnetic anomalies. A contour interval of 5 gammas was selected. Experience has shown that a cultural feature, such as a hearth, may not be detected using a larger interval.

Interpretations

Site 41DN99 is located in a rather isolated area of a fallow terraced field. No indications of historic structures or trash were present. The expectation of low background noise proved to be correct.

The survey area at this site was designed to encompass excavation unit 3 and 6 in the southern portion of the site (Figure A1-1). The contour map of the magnetic intensity at the site shows an extremely quiet field (Figure A1-2). Only one area, excavation unit 3, is indicative of a possible occurrence of interest. The adjacent low and high readings are characteristic of a magnetic anomaly. The range of readings is low, less than 10 gammas, and may represent a scatter of fire-cracked rocks.

Site 41DN102 is located in a highly disturbed area. The site has a large gravel pit to the north, and a modern trash dump to the south. The magnetometer survey areas (Figure A1-3) were situated so as to minimize the adverse influences of (1) the uneven surface caused by mounds of overburden from the gravel pits; and (2) the great amount of metal in the trash dump.

The survey grid at the west end of the site encompassed excavation unit 3 (Figure A1-4). The large number of small anomalies (5 gammas) is probably the result of microtopographic differences and/or the background effect of the modern trash. The

41 DN 99
FN 1106-5

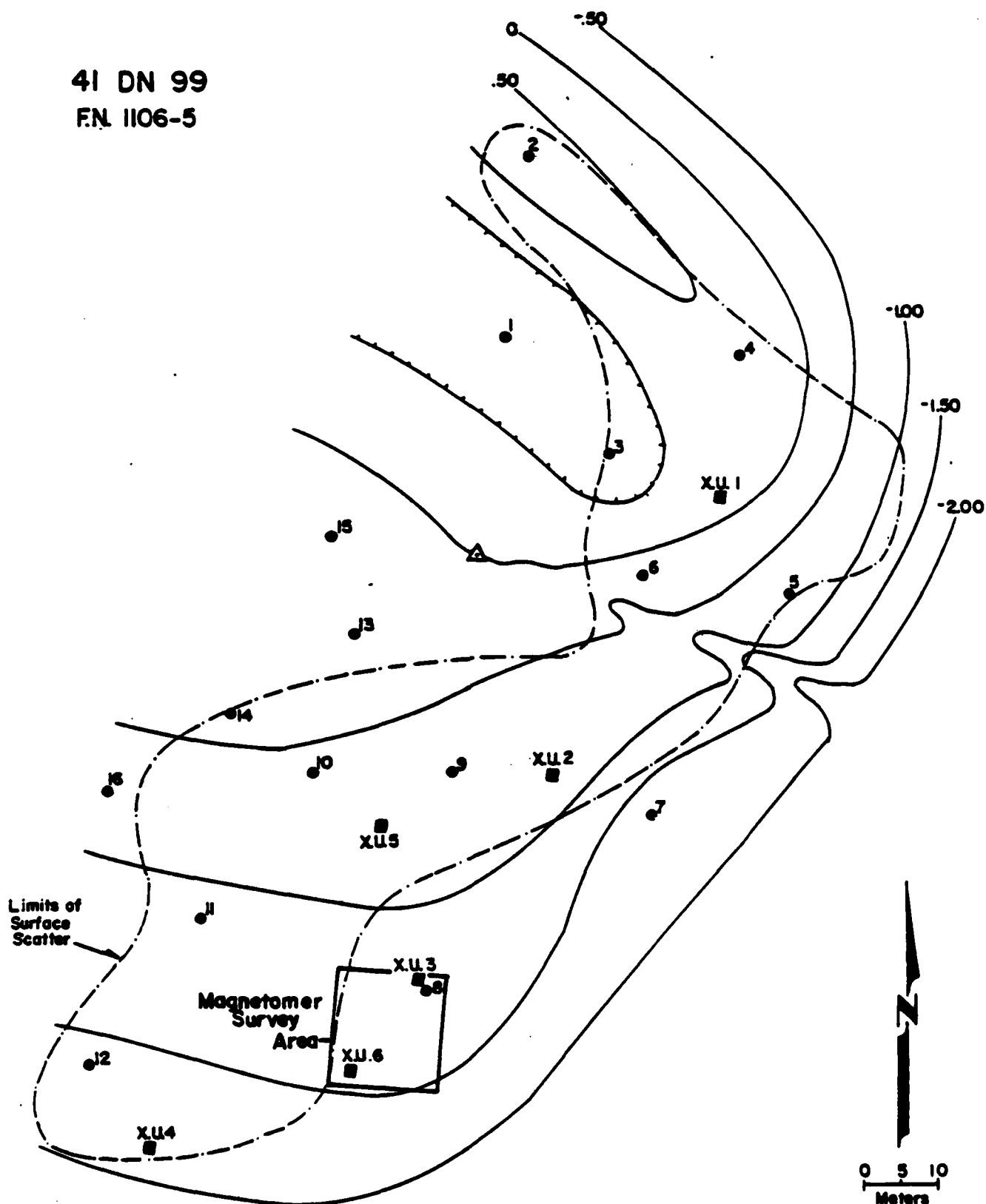
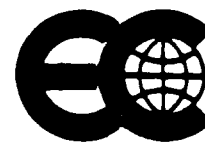
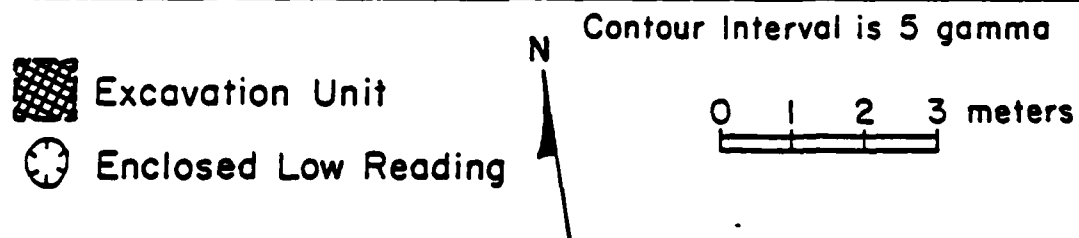
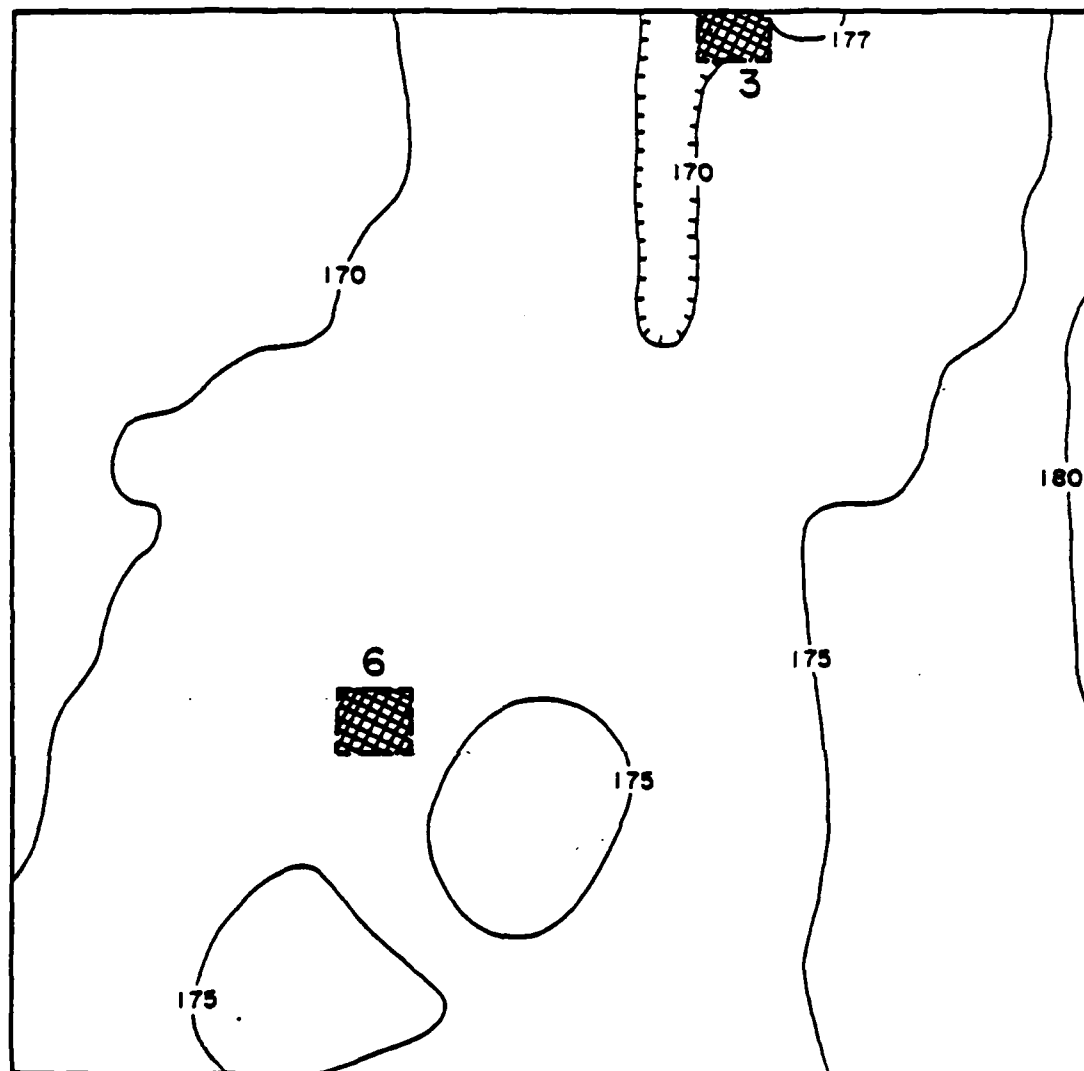


Figure A1-1. Contour map of prehistoric site 41DN99, showing locations of test units.





41 DN 99

Figure A1-2. Magnetic contour map, 41DN99.

41 DN 102
FN. 302-1-1

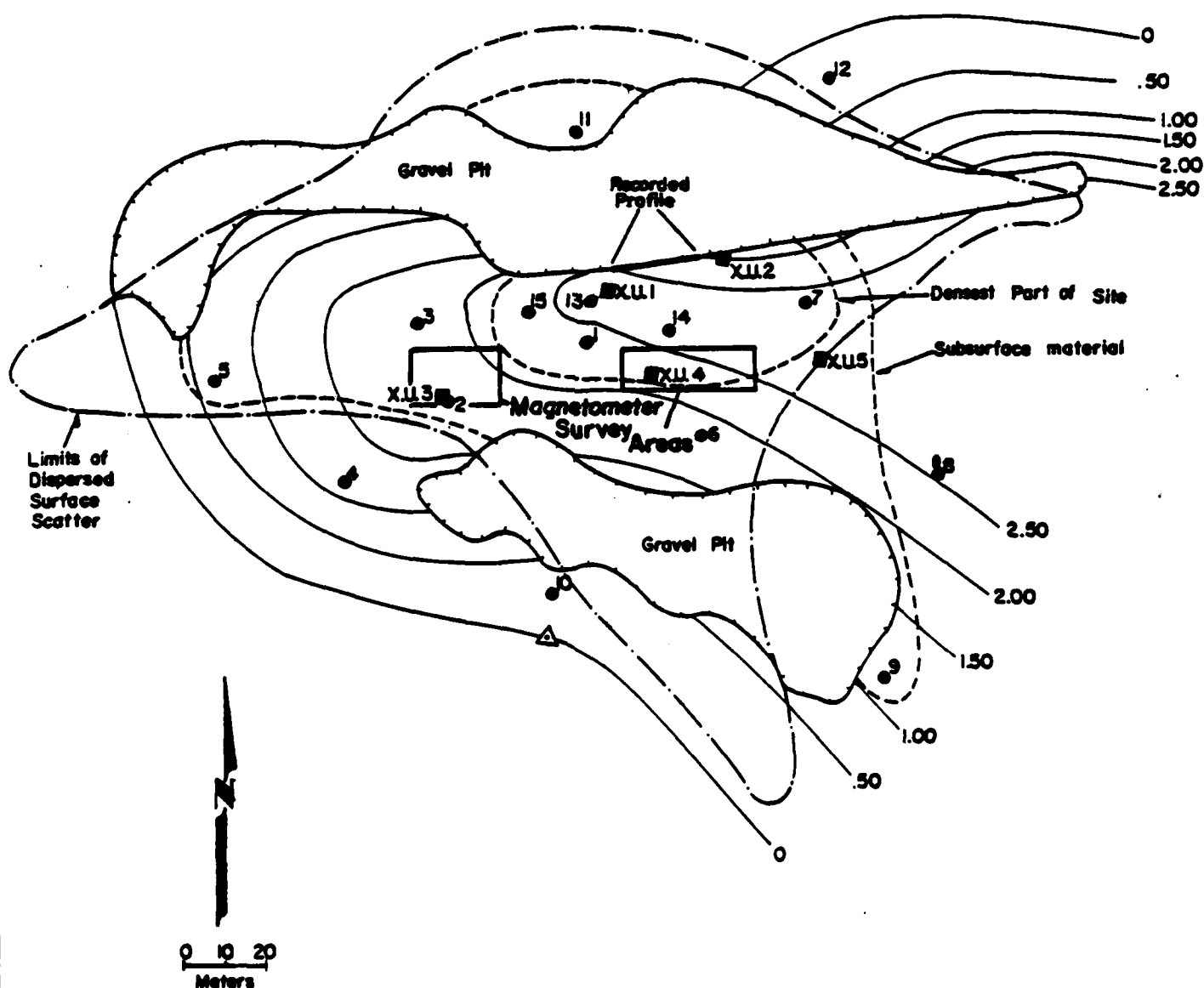


Figure A1-3. Contour map of prehistoric site 41DN102, showing locations of test units.



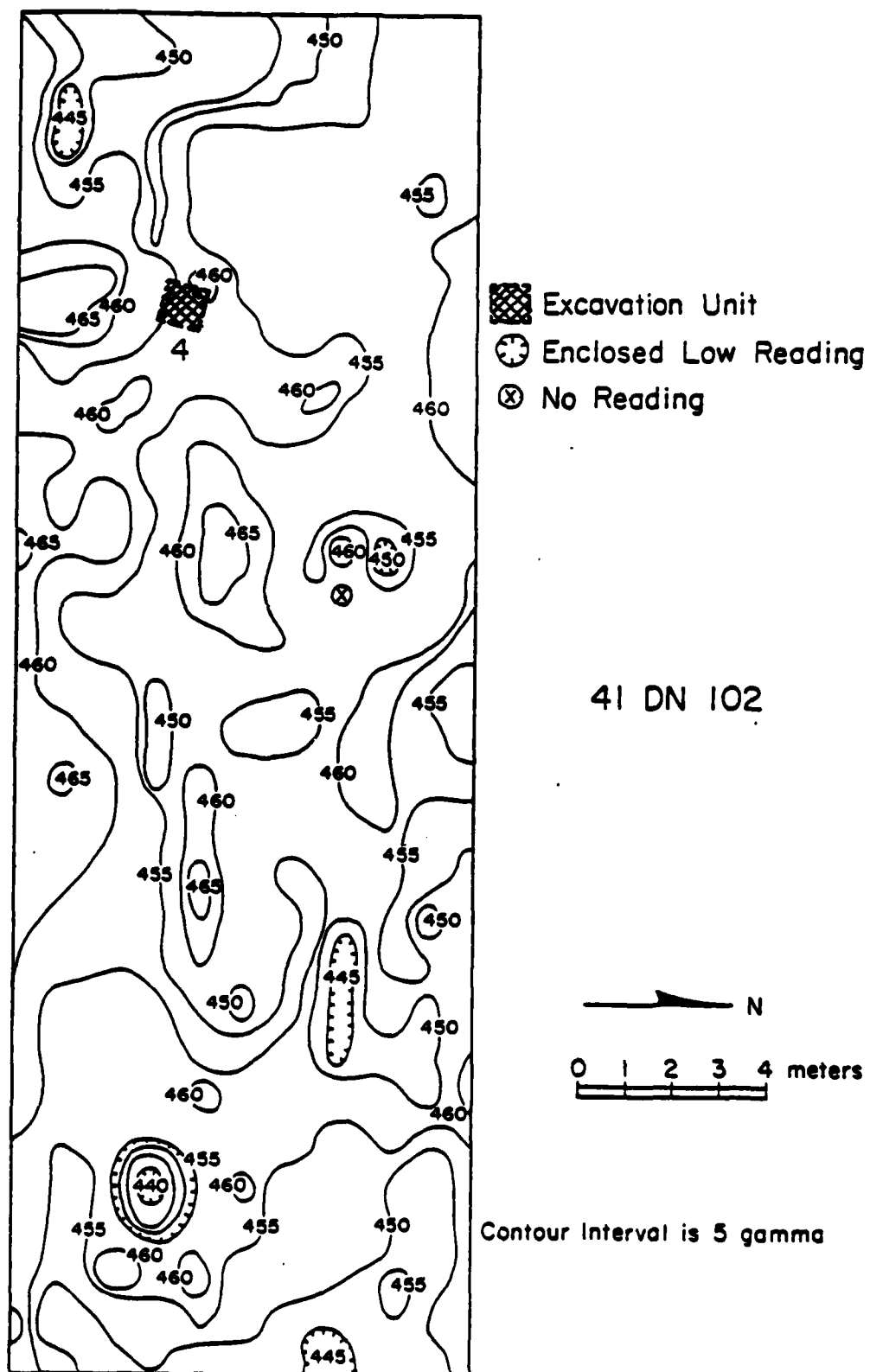


Figure A1-4. Magnetic contour map, 41DN102 eastern area.

adjacent high and low readings characteristic of a magnetic anomaly were not easily recognizable in the western survey grid.

The eastern survey grid exhibited two areas which may be of interest (Figure A1-5). A small anomaly northeast of excavation unit 4, and a larger one near the eastern edge of the grid may be significant.

Site 41DN112 is situated on a terrace remnant on the east side of the Trinity River. A portion of the north and west edges of the terrace had been removed by gravel operations. The site had been tested previously (Figure A1-6). Because fire-cracked rock was found in excavation unit 1, the magnetic survey area initially was designed to encompass the two test pits. During the survey, however, what seemed to be a significant anomaly appeared at a tree in the southwest edge of the survey area (Figure A1-7a). Consequently, it was decided to enlarge the survey area to further examine the anomaly (Figure A1-7b).

A metal detector failed to indicate any buried metallic material in the area of the anomaly. Subsequent examination of the tree, however, revealed the presence of several nails imbedded in the west side of the tree at the height of the sensor. In addition, two coils of bailing wire were discovered in the upper branches of the tree. The western survey was redone after the bailing wire was removed. The differences in the size of the anomaly are clearly evident (Figure A1-7). The large anomaly in Figure A1-7a resulted from the bailing wire. Figure A1-7b shows the adjacent area without the bailing wire, but with the imbedded nails.

Although the anomaly in the eastern portion of Figure A1-7b must be ignored as modern, the other anomaly in that survey area is probably valid. Of particular interest is the presence of adjacent high (3080) and low (2975) values. Even though the metal detector did not indicate any buried modern trash, the magnitude of the anomaly (less than 100 gammas) is suspicious. The anomaly may be the result of some buried historic artifacts.

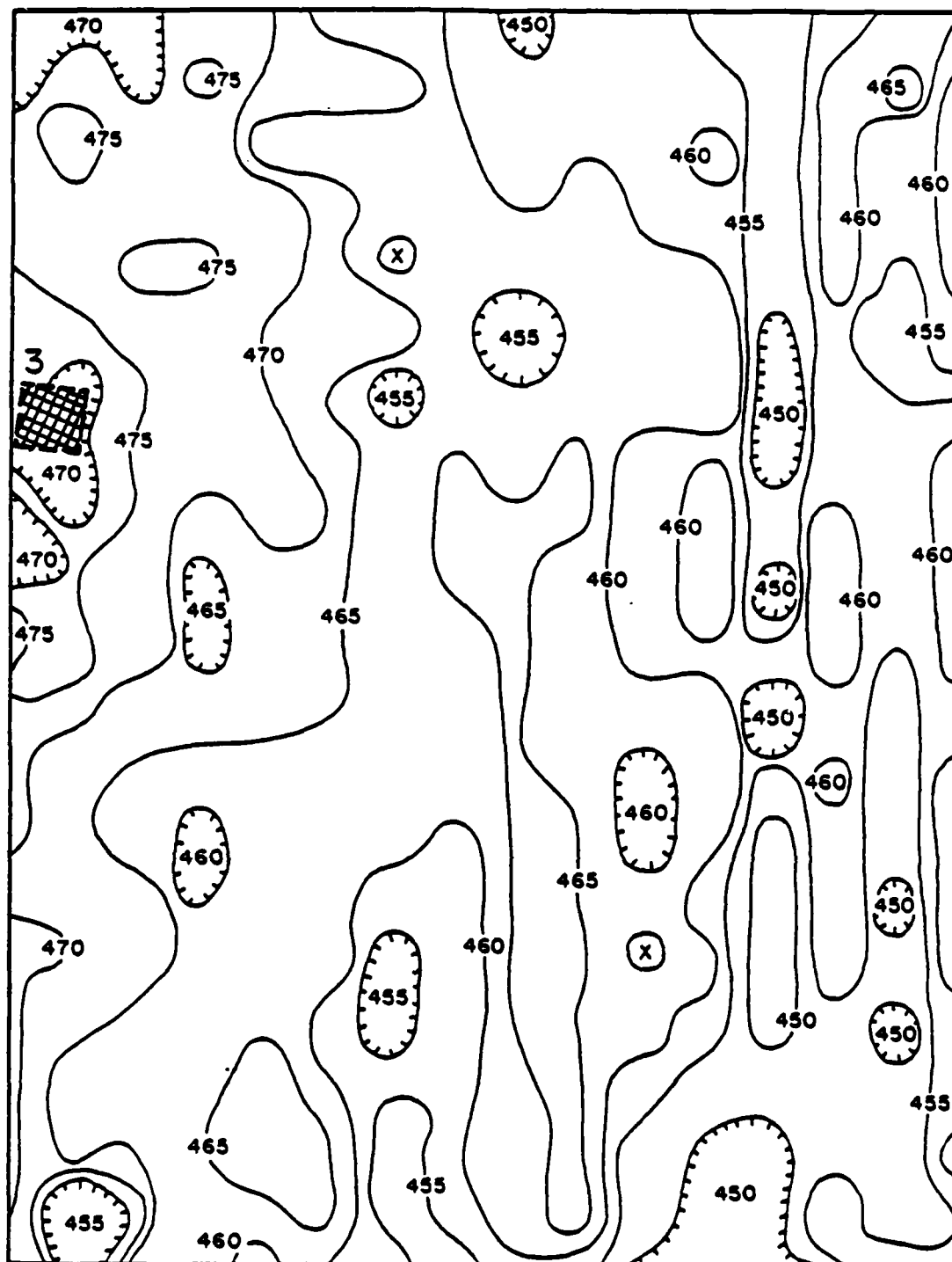
In the main (eastern) survey area, no anomalies were recorded near the test pits. One small anomaly did occur, however, in the north-central part of the survey grid. This small, 15 gamma anomaly may represent the presence of a prehistoric concentration of fire-cracked rock.

Conclusions




A magnetometer survey was conducted at three prehistoric sites at the proposed Lake Ray Roberts area previously tested during the initial testing phase. The purpose of the survey was to locate any magnetic anomalies which might represent prehistoric occupation features. It was anticipated that the results of the magnetometer survey could be used to define areas of the sites needing further examination.

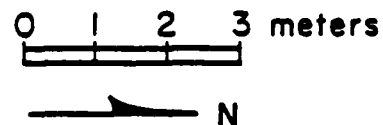
Magnetic anomalies were discovered at each of the three sites investigated. An analysis of the survey data suggests the following recommendations:

1. Site 41DW99 - expand the area around excavation unit 3 to test the high and low area of the anomaly.
2. Site 412DN102 - (a) in the north-central part of the eastern survey grid, examine the small intensity (10 gammas) anomaly having an adjacent high (460) and low



Contour Interval is 5 gamma

-  Excavation Unit
-  Enclosed Low Reading
-  No Reading



41 DN 102

Figure A1-5. Magnetic contour map, 41DN102 western area.

41 DN 112
FN. 411-1-1

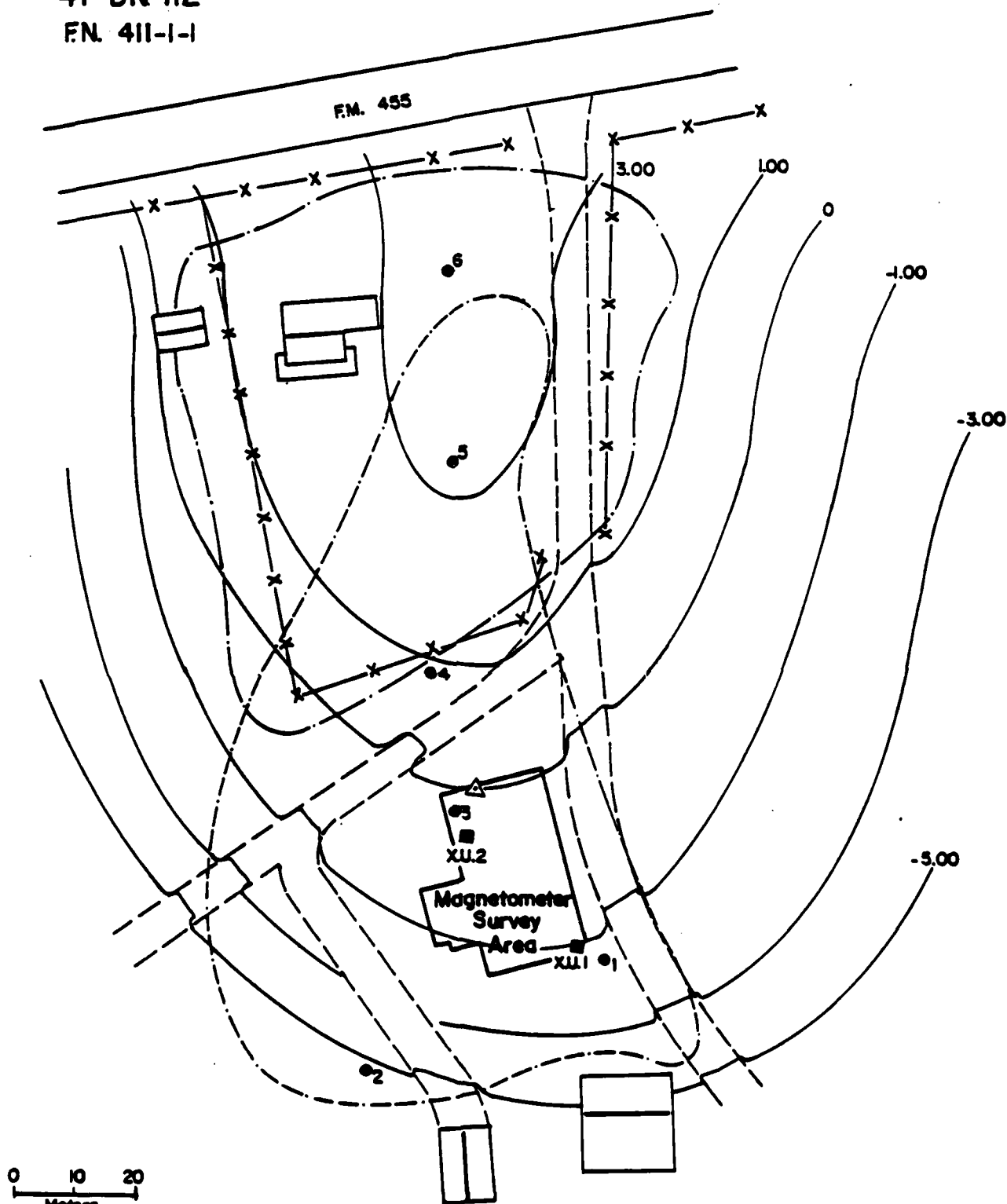
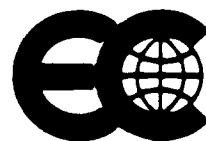


Figure A1-6. Contour map of multi-component site 41DN112, showing locations of test units.



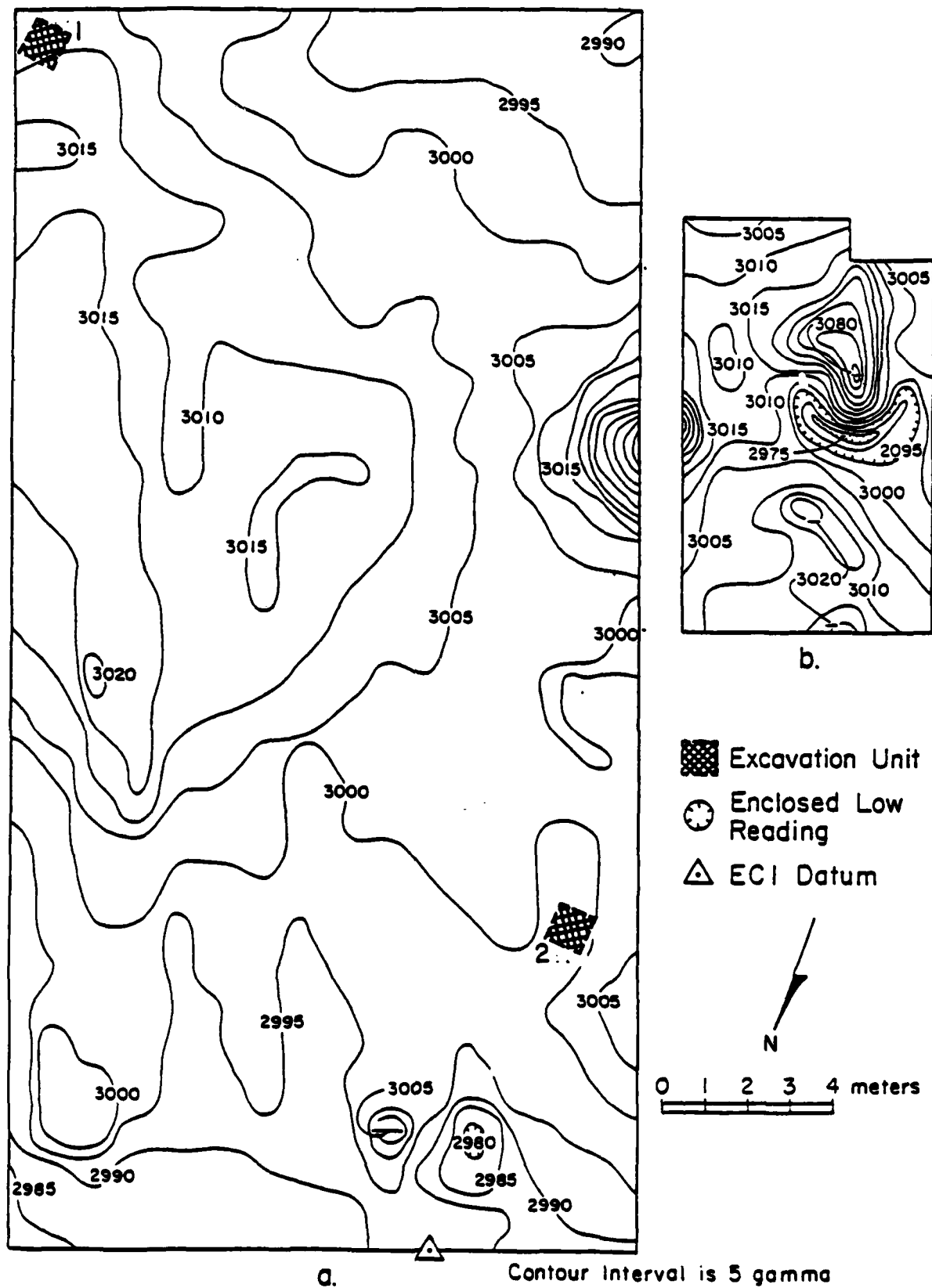


Figure A1-7. Magnetic contour map, 41DN112.

(450) reading; (b) in the eastern most part of the eastern survey grid, test the medium intensity (20 gammas) anomaly registering a low of 440 and a high of 460.

3. Site 41DN112 - (a) test the 25 gamma anomaly located near the site datum in the northern part of the site; (b) determine the cause of the large anomaly located in the western portion of the site.

The identification of the cause of the magnetic anomalies by excavation will be of value in determining the effectiveness of the magnetometer survey at prehistoric sites in the Lake Ray Roberts area. The results of the testing also will aid in deciding if the technique should be used at other sites in the area.

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Appendix 2.

Inventory of Faunal Remains from Initial Archaeological Testing by Bonnie C. Yates, NTSU

Introduction

Eight sites in the proposed reservoir construction area of Lake Ray Roberts yielded bone during initial testing activities in November 1980 to February 1981. Approximately 320 fragments were submitted to the Zooarchaeology Laboratory at the Institute of Applied Sciences, North Texas State University. The vertebrate bones had been and washed from their matrix and sorted prior to submittal.

Most of the bones were fragmented to the extent that few diagnostic morphological characteristics remained. From the size of the fragments (i.e., bone wall thickness, degree of curvature, etc.), some indication of the relative size of the animal was apparent even though exact species determination was impossible. In the following site inventories, large mammal remains (L) refers to fragments from deer-size animals. Usually, the fragments are, in fact, most probably deer. Medium-size mammal remains (M) consist of those fragments that are too large to be from rodents or rabbits but appear too gracile to be from deer. Observations for this category were admittedly subjective, and no elements from medium-size mammals most likely to be in the area (i.e., dog, opossum, fox, etc.) were identified (with possible exception of raccoon at 41DN112). Few small mammal or bird remains were recorded, primarily because only $\frac{1}{8}$ " screen was used for artifact retrieval in the initial testing phase. As a probable result, no fish or amphibian remains were recorded from these initial samples.

The sites are located in the Texan biotic province (Blair 1950) which is an ecotone between the grasslands of the Grand and Blackland Prairies and the Eastern Cross Timbers in Denon County. It is fairly certain that proximity to a variety of microenvironmental zones, such as waterways, floodplains, terraces and upland areas (Bousman and Verrett 1973), allowed inhabitants to exploit a variety of fauna.

Four microenvironmental zones have been described as follows:

1. Rivers and drainages: The biology of this zone is characterized by invertebrates such as crustaceans and mollusks and 31 species of fish including catfish, sunfish, crappie, carp, gar, and carpsuckers. The reptiles and amphibians are represented by toads, turtles, frogs, salamanders, and snakes. Beaver can be trapped in this zone. Migratory waterfowl and wading birds would be found mostly in this zone and in the following.
2. Floodplains: The animals characteristic of this zone include toads, frogs, turtles, muskrats, and swamp rabbits.
3. Terraces: Zoological elements include opossums, skunks, coyotes, squirrels, rabbits, and deer; many of these animals also are found in other zones as well.
4. Upland: In the past, prairies would have dominated this zone. Coyote, black-footed ferret, jackrabbit, bison, and prairie chicken would have been available there.

For a detailed list of currently indigenous species in the reservoir area please refer to Appendix A-F in the final supplement to the final environmental impact statement for Aubrey Lake, U.S. Army Engineer District, Ft. Worth, Texas, June 1975.

Site Inventories

41DN79

Seven fragments were recovered from the initial testing at this site. All of these were from Excavation Unit 1 (X.U.1). Two fragments were deer size; one from Level 2 (LV) had a very thick bone wall and may be of bison origin, and three were unidentifiable. No specimens were burned.

<u>Prov.</u>	<u>LV.</u>	<u>Cat. No.</u>	<u>Element</u>	<u>Taxa</u>
X.U.1	1	9-1-1	1 fragment	L
X.U.1	1	9-1-1	3 fragments	Unid.
X.U.1	2	9-2-1	2 fragments	L
X.U.1	3	9-3-1	1 fragment	L

41DN81

Fifteen fragments were recovered from 41DN81, of which six are burned (B). The majority of this material came from Excavation Unit 2. Two fragments were from auger hole 5 (A.H.5). All fragments appear to be mammalian except one snake vertebra, possibly from a rat snake (Elaphe sp.) found in Level 5 of X.U. 2.

<u>Prov.</u>	<u>LV.</u>	<u>Cat. No.</u>	<u>Element</u>	<u>Taxa</u>
A.H.5	3	5-3-1	2 fragments	Unid.
X.U.2	1	11-1-1	3 fragments (2B)	L
X.U.2	1	11-2-1	1 fragment	L
X.U.2	1	11-2-1	1 fragment	L
X.U.2	3	11-3-2	5 fragments (4B)	L
X.U.2	5	11-5-2	2 fragments	L
X.U.2	5	11-5-2	1 fragment	M
X.U.2	5	11-5-2	1 vertebra	rat snake

41DN85

Only two large mammal fragments were recovered from Excavation Unit 1 at this site, and one of these was burned.

<u>Prov.</u>	<u>LV.</u>	<u>Cat. No.</u>	<u>Element</u>	<u>Taxa</u>
X.U.1	2	4-2-1	1 fragment (B)	L
X.U.1	5	4-5-1	1 fragment	L

41DN87

Only three bones were submitted from the initial work at this site, and all of them are from the surface. These bones were light in color and extremely friable. They may have been subjected to prolonged boiling.

<u>Prov.</u>	<u>LV.</u>	<u>Cat. No.</u>	<u>Element</u>	<u>Taxa</u>
Area D	surface	153-0-1	1 fragment	M
Area E	surface	198-0-1	1 fragment	L
Area E	surface	202-0-1	1 fragment	L

41DN99

Ten fragments were recovered from Level 1 of Excavation Unit 1 at this site. Eight of these were long bone splinters, probably from deer, and the remainder included a rodent jaw and a small fragment from a pond slider turtle. None of these elements were burned. The presence of aquatic turtle indicates utilization of water resources.

<u>Prov.</u>	<u>LV.</u>	<u>Cat. No.</u>	<u>Element</u>	<u>Taxa</u>
X.U.1	1	17-1-1	8 fragments	L
X.U.1	1	17-1-1	1 mandible	cotton rat
X.U.1	1	17-1-1	1 shell fragment	red-eared turtle

41DN102

This site yielded the most osteological remains submitted for analysis (N=225). Preservation was fair to good with little or no pitting or root etching evident on the surfaces of the bones. Some fragments, however, were quite abraded and showed traces of carnivore gnawing. Twenty-four percent of the bones in this sample were burned. Most were burned black (charred), but some were burned blue or white indicating lengthy exposure to hot fires. Fragmentation was severe as with samples from other sites although some elements retained diagnostic articular ends for easier species determination.

At least ten taxa were recorded from this sample collectively representing prairie, forest and aquatic habitats. Deer was the most frequently identified species. Although only 17 elements were recorded for deer, it is highly likely that the majority of the 155 fragments relegated to the large mammal category were remains of deer. The average size of these unspecific fragments was 2 cm x 1.5 cm; the thickness of the bone wall and appearance of the bony tissue of the inner wall were consistent with the identifiable deer elements. A minimum estimate of two deer is based on the presence of two, right proximal radius fragments.

Seasonality assessment from fauna is restricted because no antler pedicles or neo-natal deer bones were recovered. From this small sample, the full compliment of deer elements suggests that the entire deer was processed on site; however, lower backbone, pelvis and feet elements were underrepresented, indicating the need for a larger sample to substantiate this idea. Nevertheless, deer appear to have provided the most consistent form of meat protein for these people.

Other utilized animals include prairie forms such as jackrabbit and possibly bison. Prairie chicken was the only bird species identified, although four unspecific avian fragments also were recovered. These latter were comparable in size to prairie chicken, but retained no diagnostic attributes for exact determination.

Of 20 fragments of turtle shell and bone, at least three genera were identified. These included two aquatic turtles (soft-shell and snapping turtles) and one terrestrial form (box turtle). The exact species of box turtle was indeterminable, and both major species (Terrapene carolina and T. ornata) are native to Denton County. The former is a woodland inhabitant and the latter prefers grasslands. It is probable that both forms were available and utilized in the past. Forty percent of the turtle fragments were burned.

Probable human bones completed the assemblage from this site. Isolated teeth fragments had distinct human morphology and may indicate disturbed burials or

randomly lost teeth; the occlusal surface of one of these teeth was extremely worn. Also, a long bone shaft from Level 1 of Excavation Unit 2 (17-1-2) had surficial texture similar to human bone.

<u>Prov.</u>	<u>LV.</u>	<u>Cat. No.</u>	<u>Element</u>	<u>Taxa</u>
A.H.7	2	7-2-1	12 fragments (5B)	L & M
A.H.7	6	7-6-1	1 enamel fragment	cf bison
A.H.13	6	13-6-1	1 petrous fragment (B)	deer
A.H.14	4	14-4-1	1 shell fragment (B)	turtle sp.
A.H.14	5	14-5-1	1 fragment	L
X.U.1	1	16-1-1	17 fragments (1B)	L
X.U.1	1	16-1-1	1 petrous fragment	L
X.U.1	2	16-2-1	15 fragments (7B)	L
X.U.1	2	16-2-1	1 talus	deer
X.U.1	2	16-2-1	2 shell fragments	turtle sp.
X.U.1	3	16-3-1	46 fragments (10B)	L
X.U.1	3	16-3-1	3 humerus fragments	deer
X.U.1	3	16-3-1	1 ulna fragment	deer
X.U.1	3	16-3-1	2 radius fragments	deer
X.U.1	3	16-3-1	1 tibia fragment	deer
X.U.1	3	16-3-1	1 limb fragment	bird sp.
X.U.1	4	16-4-1	7 fragments	L
X.U.1	4	16-4-1	2 shell fragments (1B)	turtle sp.
X.U.1	4	16-4-1	1 limb fragment	bird sp.
X.U.1	5	16-5-1	1 petrous fragment	deer
X.U.1	5	16-5-1	1 talus	jackrabbit
X.U.1	5	16-5-1	1 shell fragment	box turtle
X.U.1	5	16-5-1	4 fragments	unid.
X.U.1	6	16-6-1	9 fragments (1B)	L
X.U.1	6	16-6-1	1 fragment	M
X.U.1	6	16-6-1	1 tooth socket	jackrabbit
X.U.1	6	16-6-1	1 shell fragment	snapping turtle
X.U.1	6	16-6-1	1 coracoid fragment	prairie chicken
X.U.2	1	17-1-1	1 fragment	M
X.U.2	1	17-1-2	10 fragments (2B)	L
X.U.2	1	17-1-2	1 metatarsal fragment	deer
X.U.2	1	17-1-2	1 radius fragment	deer
X.U.2	1	17-1-2	1 limb shaft fragment	cf human
X.U.2	1	17-1-2	6 shell fragments	turtle sp.
X.U.2	1	17-1-2	1 humerus (B)	box turtle
X.U.2	2	17-2-1	2 fragments (1B)	L
X.U.2	2	17-2-1	1 phalanx II	deer
X.U.2	2	17-2-1	1 fragment	unid.
X.U.2	3	17-3-2	17 fragments (7B)	L
X.U.2	3	17-3-2	1 incisor root	deer
X.U.2	3	17-3-2	1 shell fragment	turtle sp.
X.U.2	3	17-3-2	1 shell fragment (B)	soft-shell turtle
X.U.2	4	17-4-1	2 fragments	L
X.U.2	4	17-4-2	5 fragments (2B)	L

X.U.2	4	17-4-2	1 petrous fragment	deer
X.U.2	4	17-4-2	1 cervical vertebra frag (B)	deer
X.U.2	4	17-4-2	1 molar	human
X.U.2	4	17-4-2	2 shell fragments (2B)	turtle sp.
X.U.2	4	17-4-2	1 pelvis fragment	bird sp.
X.U.2	6	17-6-1	2 fragments	L
X.U.3	1	18-1-1	1 metapodial fragment	deer
X.U.3	2	18-2-1	10 fragments (2B)	L
X.U.3	3	18-3-1	1 fragment	L
X.U.3	3	18-3-1	4 fragments	unid.
X.U.3	3	18-3-2	1 fragment (B)	unid.
X.U.3	4	18-4-1	1 fragment (B)	unid.
X.U.4	2	19-2-2	1 fragment (B)	unid.
X.U.4	3	19-3-1	1 shell fragment (B)	turtle sp.
X.U.4	3	19-3-1	1 limb fragment (B)	bird sp.
X.U.4	6	19-6-1	1 fragment	unid.
X.U.4	7	19-7-1	3 fragments	unid.
X.U.4	7	19-7-1	1 shell fragment (B)	turtle sp.
X.U.4	8	19-8-1	3 fragments	L
X.U.4	9	19-9-1	1 fragment (B)	L

Some observations may be made as a postscript to this site. A break in vertical distribution is noticeable between levels 4 and 5 of Excavation Unit 1. The faunal composition of the upper levels consisted of woodland creatures (deer, turtle and bird); furthermore, the human material was found only in these upper levels. From level 5 and below, osteological debris was reduced overall, and the composition of the assemblage changed to grassland forms (bison, jackrabbit and prairie chicken) although deer and turtle (including snapping turtle) also occurred.

This change can be attributed to many factors, but as a cautionary note, one needs to be aware of the small sample size and its effects on interpretation. First, an increased moisture trend may have caused an expansion of the wooded areas and pushed back the grasslands, thereby removing those animals from the effective exploration range of the human occupants of this site. Conversely, reduced moisture may have decreased the environmental carrying capacity to the extent that only the hardest animals remained for exploitation. Snail data could be useful to sort through these interpretations because they are generally independent of human activity and are microenvironmentally sensitive.

A second possible interpretation should be apparent from lithic analysis. If stone tool and point types also change between Levels 4 and 5, then the faunal changes might be attributable to dietary preferences between different culture groups.

41DN103

No identifiable animal remains were recovered from this site. The 10 fragments recovered were from Excavation Unit 1, Level 2 (10-2-1) and consisted of large or medium size mammal bones.

41DN112

Turtle and deer comprised the bulk of the 48 fragments recovered here. Two individual box turtles were present in Excavation Unit 1, Level 2, (7-2-1), but only one deer was apparent. The remainder of the sample was composed of large or medium size mammal remains. Preservation was worse at this site than any other with most of the fragments badly eroded, pitted and root etched. Some reconstruction resulted in identifiable elements, but most pieces did not have fitting fragments suggesting early, post-depositional disturbance or long weathering exposure prior to deposit. A tooth (possibly human) was broken into four to five pieces and could not be reconstructed, but the pieces appeared to be human even though badly worn.

Nineteen percent of this sample was burned including turtle shell and many of the deer size fragments. One fragment (26.1 mm in length) may be the remains of a small tool. Under microscopic examination, the pointed end was found to be rounded to a conical point and to exhibit longitudinal striations and light polish. It was unburned and came from Excavation Unit 1, Level 3 (7-3-1). This was the only indication of possible bone tool manufacture or use from any of the sites excavated thus far.

<u>Prov.</u>	<u>LV.</u>	<u>Cat. No.</u>	<u>Element</u>	<u>Taxa</u>
A.U.1	2	1-2-1	3 fragments (1B)	unid.
A.U.1	2	1-2-1	1 fragment	L
A.U.1	2	1-2-1	1 shell fragment	turtle sp.
X.U.1	2	7-2-1	16 fragments (2B)	L
X.U.1	2	7-2-1	1 tooth socket	L or M
X.U.1	2	7-2-1	1 femur shaft	cf raccoon
X.U.1	2	7-2-1	1 fragment	M
X.U.1	2	7-2-1	1 talus	deer
X.U.1	3	7-2-1	9 shell fragments (2B)	box turtle
X.U.1	3	7-2-1	1 tooth (in pieces)	cf human
X.U.1	3	7-3-1	2 fragments	L
X.U.1	3	7-3-1	1 rib	deer
X.U.1	3	7-3-1	1 fragment	tool?
X.U.2	2	8-2-1	1 fragment	unid.
X.U.2	3	8-3-1	2 fragments (2B)	L
X.U.2	3	8-3-1	2 fragments	unid.
X.U.2	3	8-3-1	1 nuchal (B)	box turtle
X.U.2	4	8-4-1	1 fragment (charred break)	L

The following fauna list (Table A2-1) provides scientific name and site in which each identified taxa occurs.

Table A2-1.

Taxa	Scientific Name	41DN							
		79	81	85	87	99	102	103	112
Mammal sp.		X	X	X	X	X	X	X	X
Jackrabbit	<u>Sylvilagus californicus</u>					X?	X		
Cotton rat	<u>Sigmodon hispidus</u>					X			
Deer	<u>Odocoileus virginianus</u>						X		X
Bison	<u>Bison bison</u>						X		
Bird sp.							X		
Prairie chicken	<u>Tympanuchus sp.</u>						X		
Turtle sp.							X		
Soft-shell	<u>Trionyx sp.</u>						X		
Red-eared	<u>Chrysemys sp.</u>					X			
Box turtle	<u>Terrapene sp.</u>						X		
Snapping	Chelydridae						<u>X</u>		
Snake sp.									
Rat snake	<u>Elaphe sp.</u>		X						
Human	<u>Homo sapiens sapiens</u>						X		X

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APPENDIX 3

**Stratigraphic results of subsurface testing (augering and
test-pitting) at prehistoric archaeological sites.**

Augering: 41DN79

Provenience	Matrix	Artifacts
Auger Hole 1		
0-20 cm	Reddish yellow (7.5 YR 6/6) silty sandy loam	China, 2 flakes
20-40 cm	Reddish yellow (7.5 YR 6/8) silty sandy loam	Glass
40-60 cm	Strong brown (7.5 YR 5/6) sandy silt	
60-80 cm	Strong brown (7.5 YR 4/6) sandy silt	
80-100 cm	Strong brown (7.5 YR 4/6) sandy silt	
Auger Hole 2		
0-20 cm	Brown (7.5 YR 5/4) silty sandy loam	
20-40 cm	Dark brown (7.5 YR 4/4) silty sandy loam	
40-60 cm	Strong brown (7.5 YR 5/6) sandy silt	
60-80 cm	Strong brown (7.5 YR 5/6) sandy silt	
80-100 cm	Strong brown (7.5 YR 4/6) sandy silt	1 flake
100-120 cm	Strong brown (7.5 YR 4/6) sandy silt	
120-140 cm	Brown (7.5 YR 5/4) sand with quartzite and limestone gravel	
Auger Hole 3		
0-20 cm	Brown (7.5 YR 5/2) silty loam	
20-40 cm	Brown (7.5 YR 5/4) silty loam	
40-60 cm	Brown (7.5 YR 5/4) silty loam	
60-80 cm	Strong brown (7.5 YR 5/6) clay	
80-100 cm	Mottled brown (7.5 YR 5/4) clay	
Auger Hole 4		
0-20 cm	Reddish yellow (7.5 YR 6/8) silty loam	
20-40 cm	Reddish yellow (7.5 YR 6/8) silty loam	
40-60 cm	Strong brown (7.5 YR 5/6) silty loam	2 flakes
60-80 cm	Brown (7.5 YR 5/4) silt	1 flake
80-100 cm	Brown (7.5 YR 5/4) silt	
100-120 cm	Brown (7.5 YR 5/4) silt	
120-140 cm	Strong brown (7.5 YR 5/8) sand	
Auger Hole 5		
0-20 cm	Strong brown (7.5 YR 5/8) silty loam	
20-40 cm	Strong brown (7.5 YR 5/6) silty loam with some gravel	1 possible flake
40-60 cm	Yellowish red (5 YR 5/8) sandy silty loam	
60-80 cm	Yellowish red (5 YR 5/8) sandy clay	
80-100 cm	Yellowish red (5 YR 5/8) sand with yellow (10 YR 7/8) mottling	
Auger Hole 6		
0-20 cm	Reddish yellow (7.5 YR 6/6) silty loam	
20-40 cm	Strong brown (7.5 YR 5/6) silty loam	
40-60 cm	Brown (7.5 YR 5/4) silty clay	
60-80 cm	Brown (7.5 YR 5/4) silty clay	
80-100 cm	Strong brown (7.5 YR 5/6) silty clay	

Augering: 41DN79 (Cont.)

Provenience	Matrix	Artifacts
Auger Hole 7		
0-20 cm	Reddish yellow (7.5 YR 6/6) silty loam	
20-40 cm	Strong brown (7.5 YR 5/6) silty loam with limestone gravel	
40-60 cm	Strong brown (7.5 YR 5/6) silty loam with dense limestone gravel	
Auger Hole 8		
0-20 cm	Strong brown (7.5 YR 4/6) silty loam with large rocks	Heavy charcoal
20-40 cm	Strong brown (7.5 YR 5/6) silty loam	
40-60 cm	Strong brown (7.5 YR 5/8) silty loam	
60-80 cm	Reddish yellow (7.5 YR 6/8) silty loam	
80-100 cm	Reddish yellow (7.5 YR 6/8) silty loam	

Test Unit 1: 41DN79

Level	Depth below surface (cm)	Matrix	Artifacts
1	0-13	Reddish yellow (7.5 YR 6/6) sandy loam	Biface fragment, 1 core, endscraper, 59 flakes, bone, shell, historic
2	13-21	Reddish yellow (7.5 YR 6/6) sandy loam	25 flakes, bone, shell, historic
3	21-30	Strong brown (7.5 YR 5/6) sandy loam	Gary point, 10 flakes, 3 coal fragments, historic
4	30-41	Brown (7.5 YR 5/4) sandy loam	10 flakes, 1 re-retouched piece, shell, historic
5	41-62	Dark brown (7.5 YR 4/6) sandy silty loam	2 flakes, historic
A.L.1	62-82	Strong brown (7.5 YR 4/6) sandy silty loam	
A.L.2	82-102	Strong brown (7.5 YR 4/6) sandy silty loam	
A.L.3	102-122	Strong brown (7.5 YR 4/6) sandy silty loam	
A.L.4	122-142	Strong brown (7.5 YR 4/6) sandy silty loam	
A.L.5	142-162	Strong brown (7.5 YR 4/6) sandy silty loam, with gravel	

A.L. = Auger Level

Test Unit 2a: 41DN79

Level	Depth below surface (cm)	Matrix	Artifacts
1	0-10	Reddish yellow (7.5 YR 6/6) sandy loam	16 flakes, possible gunflint, historic
2	10-30	Strong brown (7.5 YR 5/6) clay loam	11 flakes Perdiz point, historic
3	30-50	Strong brown (7.5 YR 4/6) clay loam	5 flakes
4	50-77	Strong brown (7.5 YR 4/6) sandy clay loam	4 flakes, 1 retouched piece
A.L. 1	70-90	Strong brown (7.5 YR 5/6) sandy clay loam	
A.L. 2	90-110	Strong brown (7.5 YR 4/6) sandy clay loam	
A.L. 3	110-130	Strong brown (7.5 YR 4/6) sandy clay loam	
A.L. 4	130-150	Strong brown (7.5 YR 4/6) sandy clay loam	
A.L. 5	150-170	Strong brown (7.5 YR 4/6) sandy clay loam	

A.L. = Auger Level

Augering: 41DN80

Provenience	Matrix	Artifacts
Auger Hole 1		
0-20 cm	Brown (7.5 YR 5/4) clay loam	
20-40 cm	Brown (7.5 YR 5/4) silty clay loam, with some gravel	
40-60 cm	Brown (7.5 YR 5/4) sand with limestone gravel	
Auger Hole 2		
0-20 cm	Brown (7.5 YR 5/4) silty loam	
20-40 cm	Brown (7.5 YR 5/4) silty loam	
40-60 cm	Strong brown (7.5 YR 4/6) silty clay	
60-80 cm	Strong brown (7.5 YR 4/6) silty clay	
80-100 cm	Brown (7.5 YR 5/4) clay	
Auger Hole 3		
0-20 cm	Brown (7.5 YR 5/4) silty loam	
20-40 cm	Brown (7.5 YR 5/4) silty loam	
40-60 cm	Strong brown (7.5 YR 4/6) silty loam	
60-80 cm	Strong brown (7.5 YR 4/6) silt	
80-100 cm	Strong brown (7.5 YR 4/6) sandy silt	
Auger Hole 4		
0-20 cm	Brown (7.5 YR 5/4) silty loam	1 quartzite biface tip
20-40 cm	Brown (7.5 YR 5/4) silty loam	
40-60 cm	Strong brown (7.5 YR 4/6) silty loam	Flakes, fire- cracked rock
60-80 cm	Strong brown (7.5 YR 4/6) silty loam	
80-100 cm	Strong brown (7.5 YR 4/6) silty loam	

Test Unit 1: 41DN80

Level	Depth below surface (cm)	Matrix	Artifacts
1	0-18	Brown (7.5 YR 5/4) sandy silt with pebbles	7 flakes
2	18-28	Strong brown (7.5 YR 4/6) sandy silt with pebbles	3 flakes, 1 chert chunk, 1 piece wire
3	28-38	Strong brown (7.5 YR 4/6) sandy silt with pebbles	

Augering: 41DN81

Provenience	Matrix	Artifacts
Auger Hole 1a		
0-20 cm	Brown (7.5 YR 5/4) silty loam	3 flakes
20-40 cm	Strong brown (7.5 YR 4/4) silty loam	
40-60 cm	Dark yellowish brown (10 YR 3/4) silty loam	
60-80 cm	Dark yellowish brown (10 YR 3/4) silty loam	
Auger Hole 1b		
0-20 cm	Brown (7.5 YR 5/4) sandy loam	
20-40 cm	Strong brown (7.5 YR 4/4) sandy silty loam	
40-60 cm	Dark yellowish brown (10 YR 3/4) silty clay loam	
60-80 cm	Dark yellowish brown (10 YR 3/4) silty clay loam	
80-100 cm	Dark yellowish brown (10 YR 3/4) silty clay loam	
Auger Hole 2		
0-20 cm	Strong brown (7.5 YR 4/4) sandy silt loam	
20-40 cm	Dark yellowish brown (10 YR 3/4) sandy clay loam	
40-60 cm	Dark yellowish brown (10 YR 3/4) sandy clay loam	
60-80 cm	Dark yellowish brown (10 YR 3/4) silty clay loam	
80-100 cm	Dark yellowish brown (10 YR 3/4) silty clay loam	
Auger Hole 3		
0-20 cm	Brown (7.5 YR 5/4) sandy loam	
20-40 cm	Strong brown (7.5 YR 4/4) sandy silt loam	
40-60 cm	Strong brown (7.5 YR 4/4) sandy silt loam	
60-80 cm	Mottled strong brown (7.5 YR 4/4) clay loam	
80-100 cm	Mottled strong brown (7.5 YR 4/4) clay loam	
Auger Hole 4		
0-20 cm	Strong brown (7.5 YR 4/4) sandy silt loam	
20-40 cm	Strong brown (7.5 YR 4/4) sandy silt loam	
40-60 cm	Dark yellowish brown (10 YR 3/4) silty clay loam	
60-80 cm	Dark yellowish brown (10 YR 3/4) silty clay loam	
80-100 cm	Dark yellowish brown (10 YR 3/4) silty clay loam	
Auger Hole 5		
0-20 cm	Strong brown sandy (7.5 YR 4/4) silt loam	2 glass pieces
20-40 cm	Dark yellowish brown (10 YR 3/4) silty clay loam	1 metal fragment
40-60 cm	Dark yellowish brown (10 YR 3/4) silty clay loam	2 bone fragments
60-80 cm	Dark yellowish brown (10 YR 3/4) silty clay loam	Glass
80-100 cm	Dark yellowish brown (10 YR 3/4) silty clay loam with gravel	

Augering: 41DN81 (Cont.)

Provenience	Matrix	Artifacts
Auger Hole 6		
0-20 cm	Strong brown (7.5 YR 5/4) sandy silt loam	
20-40 cm	Dark yellowish brown (10 YR 3/4) silty clay loam	
40-60 cm	Dark yellowish brown (10 YR 3/4) silty clay loam	
60-80 cm	Dark yellowish brown (10 YR 3/4) silty clay loam	
80-100 cm	Dark yellowish brown (10 YR 3/4) silty clay loam	
Auger Hole 7		
0-20 cm	Strong brown (7.5 YR 5/4) sandy loam	
20-40 cm	Dark yellowish brown (10 YR 3/4) sandy silt loam	
40-60 cm	Dark yellowish brown (10 YR 3/4) silty clay loam	
60-80 cm	Dark yellowish brown (10 YR 3/4) clay loam	
80-100 cm	Dark yellowish brown (10 YR 3/4) clay loam	
Auger Hole 8		
0-20 cm	Strong brown (7.5 YR 5/4) sandy loam	Glass, shell, stone fragments Dense stone fragments
20-40 cm	Strong brown (7.5 YR 5/4) sandy loam	
40 + cm	Dense Rocks	
Auger Hole 9		
0-20 cm	Strong brown (7.5 YR 5/4) sandy loam	Glass Concrete mortar?
20-40 cm	Dark yellowish brown (10 YR 3/4) silty clay loam	
40-60 cm	Dark yellowish brown (10 YR 3/4) silty clay loam	
60-80 cm	Dark yellowish brown (10 YR 3/4) silty clay loam	
80-100 cm	Dark yellowish brown (10 YR 3/4) silty clay loam	

Test Unit 1: 41DN81

Level	Depth below surface (cm)	Matrix	Artifacts
1	0-11	Strong brown (7.5 YR 4/4) sandy loam with gravel	Glass, nail, flakes
2	11-21	Strong brown (7.5 YR 4/4) sandy loam with gravel	Flakes, hammerstone
3	21-31	Dark yellowish brown (10 YR 3/4) mottled clay loam with gravel	Flakes
4	31-41	Dark yellowish brown (10 YR 3/4) clay loam	

Test Unit 2: 41DN81

Level	Depth below Surface (cm)	Matrix	Artifacts
1	0-10	Dark yellowish brown (10 YR 3/4) sandy silt loam	Lithics, historic ceramics, glass, bone, shell, 549 fire-cracked rocks
2	10-20	Dark yellowish brown (10 YR 3/4) sandy silt loam	Historic ceramics, glass, shell, bone, 159 fire-cracked rocks
3	20-30	Dark yellowish brown (10 YR 4/6) sandy silt loam	Historic ceramics, glass, bone, flakes, shell, 230 fire-cracked rocks
4	30-40	Yellowish brown (10 YR 5/8) sandy silt loam	Flakes, shell, bone, 91 fire-cracked rocks
5	40-50	Yellowish brown (10 YR 5/8) sandy silt loam	Flakes, shell

Test Unit 3: 41DN81

Level	Depth below surface (cm)	Matrix	Artifacts
1	0-10	Yellowish brown (10 YR 5/8) sandy clay	Projectile point, flakes, cores, glass historic ceramics
2	10-30	Dark yellowish brown (10 YR 4/6) sandy clay	

Test Unit 4: 41DN81

Level	Depth below surface (cm)	Matrix	Artifacts
1	0-10	Dark yellowish brown (10 YR 3/4) clay loam	Shell, glass, historic ceramics, nails, flakes
2	10-20	Dark yellowish brown (10 YR 3/4) sandy loam	Mortar, brick, glass, nails, flakes
3	20-30	Dark yellowish brown (10 YR 4/6) sandy clay loam	Projectile point, flakes, bone
4	30-40	Dark yellowish brown (10 YR 4/6) sandy clay loam	Fire-cracked rock, shell, flakes
5	40-50	Yellowish brown (10 YR 5/8) sandy clay	Flakes, shell, both from top of level

Augering: 41DN101

Provenience	Matrix	Artifacts
Auger Hole 1 0-18 cm 18 + cm	Brown (10 YR 5/3) sandy silt loam, with gravel Impenetrable gravel	
Auger Hole 2 0-20 cm 20-36 cm	Dark brown (10 YR 3/3) sandy loam Dark brown (10 YR 3/3) sandy loam	
Auger Hole 3 0-20 cm 20-40 cm 40-60 cm 60-80 cm 80-100 cm	Brown (10 YR 5/3) sandy silt loam with gravel Dark yellowish brown (10 YR 3/4) sandy silt loam Dark yellowish brown (10 YR 3/4) sandy clay loam Dark yellowish brown (10 YR 3/4) sandy clay loam Dark yellowish brown (10 YR 3/4) sandy clay	
Auger Hole 4 0-19 cm 19-31 cm	Brown (10 YR 5/3) silt Dark yellowish brown (10 YR 3/4) clay	Shell
Auger Hole 5 0-9 cm	Brown (10 YR 5/3) silt	Flakes, shell, fire-cracked rock
Auger Hole 6 0-21 cm 21-38 cm	Brown (10 YR 5/3) silt Dark yellowish brown (10 YR 3/4) clay	Flake
Auger Hole 7 0-21 cm 21-43 cm	Brown (10 YR 5/3) silt Brown (10 YR 5/3) silt	Flakes, shell Flakes, shell, fire- cracked rock
Auger Hole 8 0-20 cm 20-27 cm	Brown (10 YR 5/3) silt Dark brown (10 YR 3/3) clay silt	
Auger Hole 9 0-19 cm 19-39 cm 39-52 cm 52-62 cm	Dark brown (10 YR 3/3) silt Dark brown (10 YR 3/3) silt Dark yellowish brown (10 YR 3/3) silt clay Dark yellowish brown (10 YR 3/3) clay	Charcoal, flake, fire-cracked rock Flakes Flake

Test Unit 1: 41DN101

Level	Depth below surface (cm)	Matrix	Artifacts
1	0-10	Dark yellowish brown (10 YR 3/4) loam	Drill fragment, flakes, mussell shell, burned rock (89)
2	10-20	Very dark brown (10 YR 2/2) loam	Quartzite flakes, chert flakes, a possible milling stone
3	20-30	Very dark brown (10 YR 3/3) loam	Metate fragment, mussell shell, quartzite and chert flakes, burned rock (146)
4	30-40	Dark brown (10 YR 3/3) loam	Mussell shell, quartzite and chert flakes, burned rock (81) possible metate fragment
5	40-50	Dark yellowish brown (10 YR 3/4) clay loam	Mussell shell, burned rock, quartzite and chert flakes
6	50-60	Dark yellowish brown (10 YR 3/4) sand loam intermixed with gravel	

Test Unit 2: 41DN101

Level	Depth below surface (cm)	Matrix	Artifacts
1	0-10	Very dark greyish brown (10 YR 3/2) loam	Burned rocks (9), 1 chert flake, quartzite flakes
2	10-20	Very dark brown (10 YR 2/2) loam (midden deposit)	Burned rock, chert flakes, quartzite flakes
3	20-30	Very dark brown (10YR 2/2) loam (midden deposit)	Chert flakes, quartzite flakes, burned rocks
4	30-40	Very dark brown (10 YR 3/2) loam (midden deposit)	3 projectile points, burned rock (132), chert flakes, quartzite flakes
5	40-50	Very dark greyish brown (10 YR 3/2) clay loam	3 flakes, 1 bone, 1 mussel shell
6	50-60	Dark brown (10 YR 3/3) clay loam intermixed with ironstone gravel	1 mussel shell

Test Unit 1: 41DN84

Level	Depth below surface (cm)	Matrix	Artifacts
1	0-10	Dark reddish grey (5 YR 4/2) sandy loam	2 pieces of charcoal, 1 bone fragment, 1 chert flake
2	10-20	Dark reddish brown (5 YR 3/3) clay loam mottled with ironstone	Charcoal, 1 glass fragment
3	20-32	Dark reddish brown (5 YR 3/3) compact sandy clay loam intermixed with gravels and ironstone	

Augering: 41DN85

Provenience	Matrix	Artifacts
Auger Hole 1		
0-20 cm	Brown (7.5 YR 5/2) sandy loam	
20-40 cm	Brown (7.5 YR 5/2) sandy loam	
40-60 cm	Dark brown (7.5 YR 4/4) sandy clay loam	
60-80 cm	Dark brown (7.5 YR 4/4) sandy clay loam	
80-100 cm	Dark brown (7.5 YR 4/4) sandy clay loam	
Auger Hole 2		
0-20 cm	Brown (7.5 YR 5/2) sandy loam	
20-40 cm	Brown (7.5 YR 5/2) sandy loam	
40-60 cm	Dark brown (7.5 YR 4/4) clay loam	
60-80 cm	Dark brown (7.5 YR 4/4) clay loam	
80-100 cm	Dark brown (7.5 YR 4/4) clay loam	
Auger Hole 3		
0-20 cm	Brown (7.5 YR 5/2) sandy loam	1 flake
20-40 cm	Brown (7.5 YR 5/2) sandy loam	
40-60 cm	Brown (7.5 YR 5/2) sandy loam	
60-80 cm	Dark brown (7.5 YR 4/4) sandy clay loam	
80-100 cm	Dark brown (7.5 YR 4/4) sandy clay loam	
Auger Hole 4		
0-23 cm	Brown (7.5 YR 5/4) silt	Flake
23-32 cm	Yellowish red (5 YR 4/6) silt	
Auger Hole 5		
0-26 cm	Yellowish red (5 YR 4/6) silt	Flake
26-35 cm	Yellowish red (5 YR 4/6) silt	
Auger Hole 6		
0-30 cm	Brown (7.5 YR 5/4) silt	Flake
30-33 cm	Yellowish red (5 YR 4/6) silt clay	
Auger Hole 7		
0-35 cm	Brown (7.5 YR 5/4) silt	Flake
35-42 cm	Yellowish red (5 YR 4/6) silt clay	
Auger Hole 8		
0-23 cm	Brown (7.5 YR 5/4) silt	
23-30 cm	Yellowish red (5 YR 4/6) clay silt	
Auger Hole 9		
0-27 cm	Brown (7.5 YR 5/4) silt	

Augering: 41DN85 (Cont.)

Provenience	Matrix	Artifacts
Auger Hole 10		
0-31 cm	Brown (7.5 YR 5/2) silt	Flake
31-68 cm	Brown (7.5 YR 5/2) silt	
Auger Hole 11		
0-29 cm	Brown (7.5 YR 5/4) silt	Metal
29-50 cm	Yellowish red (5 YR 4/6) clay silt	
Auger Hole 12		
0-19 cm	Brown (7.5 YR 5/4) silt	

Test Unit 1: 41DN85

Level	Depth below surface (cm)	Matrix	Artifacts
1	0-10	Brown (7.5 YR 5/2) sandy loam	1 shotgun shell, 4 flakes
2	10-20	Brown (7.5 YR 5/2) sandy loam	8 flakes, bone
3	20-30	Brown (7.5 YR 5/4) sandy loam	15 flakes, 1 scraper retouched piece
4	30-40	Dark brown (7.5 YR 4/4) sandy loam	9 flakes
5	40-50	Dark brown (7.5 YR 4/4) sandy loam	11 flakes, bone
6	50-60	Dark brown (7.5 YR 4/4) sandy loam	7 flakes
7	60-70	Dark brown (7.5 YR 4/4) sandy loam with underlying clay with some gravel	2 flakes, 1 projectile point
8	70-80	Yellowish red (5 YR 4/6) clay	

Test Unit 2: 41DN85

Level	Depth below surface (cm)	Matrix	Artifacts
1	0-10	Brown (7.5 YR 5/2) fine silty sand	1 wire nail, 2 quartzite flakes
2	10-20	Brown (7.5 YR 5/2) fine silty sand	1 quartzite flake
3	20-30	Brown (7.5 YR 5/4) silty sand mottled with red sand	1 quartzite flake
4	30-40	Very compact yellowish red (5 YR 4/6) clay loam	

Augering: 41DN99

Provenience	Matrix	Artifacts
Auger Hole 1		
0-20 cm	Dark brown (10 YR 4/3) silt	
20-40 cm	Brown (10 YR 5/3) silty clay	
40-60 cm	Dark brown (10 YR 4/3) silty clay	
Auger Hole 2		
0-20 cm	Dark yellowish brown (10 YR 4/4) silt with some gravel	
20-40 cm	Reddish brown (5 YR 4/4) silty clay	3 flakes
40-60 cm	Reddish brown (5 YR 4/4) silty clay	1 flake
60-80 cm	Reddish brown (5 YR 4/4) silty clay	1 flake
80-100 cm	Reddish brown (5 YR 4/4) silty clay	
100-120 cm	Reddish brown (5 YR 4/4) silty clay	
Auger Hole 3		
0-20 cm	Dark yellowish brown (10 YR 4/4) silt	
20-40 cm	Reddish brown (5 YR 4/4) silty clay	
40-60 cm	Reddish brown (5 YR 4/4) silty clay	
60-80 cm	Reddish brown (5 YR 4/4) silty clay	
60-80 cm	Reddish brown (5 YR 4/4) silty clay	
80-100 cm	Reddish brown (5 YR 4/4) silty clay	
Auger Hole 4		
0-20 cm	Dark brown (10 YR 4/3) silt	5 flakes
20-40 cm	Reddish brown (5 YR 4/4) silty clay	
40-60 cm	Reddish brown (5 YR 4/4) silty clay	
60-80 cm	Yellowish brown (10 YR 5/4) silt	
80-100 cm	Brownish yellow (10 YR 6/6) silty clay with some gravel	
Auger Hole 5		
0-20 cm	Dark yellowish brown (10 YR 4/4) sandy silt	
20-40 cm	Reddish brown (5 YR 4/4) silty clay	
40-60 cm	Reddish brown (5 YR 4/4) clay	
60-80 cm	Reddish brown (5 YR 4/4) clay	
80-100 cm	Reddish brown (5 YR 4/4) silty clay	1 flake
Auger Hole 6		
0-20 cm	Brown (10 YR 5/3) silt	
20-40 cm	Reddish brown (5 YR 4/4) silty clay	
40-60 cm	Reddish brown (5 YR 4/4) silty clay	
60-80 cm	Reddish brown (5 YR 4/4) silty clay	1 flake
80-100 cm	Reddish brown (5 YR 4/4) silty clay	
100-120 cm	Reddish brown (5 YR 4/4) silty clay	

Augering: 41DN99 (Cont.)

Provenience	Matrix	Artifacts
Auger Hole 7		
0-20 cm	Dark brown (10 YR 4/3) silty sandy loam	1 flake
20-40 cm	Reddish brown (5 YR 4/4) silty sandy loam	
40-60 cm	Reddish brown (5 YR 4/4) silty sandy loam	2 flakes
60-80 cm	Reddish brown (5 YR 4/4) silty clay	
80-100 cm	Reddish brown (5 YR 4/4) silty clay	
100-120 cm	Reddish brown (5 YR 4/4) clay with some sand	
Auger Hole 8		
0-20 cm	Dark brown (10 YR 4/3) silty loam	1 flake
20-40 cm	Brown (10 YR 5/3) silty loam	
40-60 cm	Dark brown (10 YR 4/3) sandy loam, with orange mottling	5 flakes, charcoal
60-80 cm	Reddish brown (5 YR 4/4) silty clay	Charcoal
80-100 cm	Reddish brown (5 YR 4/4) silty clay	1 flake
100-120 cm	Reddish brown (5 YR 4/4) silty clay	1 flake
120-140 cm	Reddish brown (5 YR 4/4) sandy silt	1 flake
140-160 cm	Reddish brown (5 YR 4/4) silty sand	
Auger Hole 9		
0-20 cm	Dark yellowish brown (10 YR 4/4) silty loam	
20-40 cm	Reddish brown (5 YR 4/4) silty clay	Charcoal
40-60 cm	Reddish brown (5 YR 4/4) silty clay	
60-80 cm	Reddish brown (5 YR 4/4) silty clay	
80-110 cm	Reddish brown (5 YR 4/4) silty sandy clay	
Auger Hole 10		
0-20 cm	Brown (10 YR 5/3) silty loam	
20-40 cm	Reddish brown (5 YR 4/4) silty clay	1 flake
40-60 cm	Reddish brown (5 YR 4/4) sandy clay	
60-80 cm	Reddish brown (5 YR 4/4) silty clay	
80-100 cm	Reddish brown (5 YR 4/4) silty clay	
Auger 11		
0-20 cm	Dark yellowish brown (10 YR 4/4) silty clay	
20-40 cm	Reddish brown (5 YR 4/4) silty clay	
40-75 cm	Reddish brown (5 YR 4/4) silty clay	
75-80 cm	Reddish brown (5 YR 4/4) sandy clay	
80-100 cm	Reddish brown (5 YR 4/4) sandy clay	
Auger Hole 12		
0-20 cm	Dark brown (10 YR 4/3) silty loam	4 flakes
20-40 cm	Reddish brown (5 YR 4/4) silty clay	
40-60 cm	Reddish brown (5 YR 4/4) sandy clay	
60-80 cm	Reddish brown (5 YR 4/4) sandy silt	1 flake
80-100 cm	Reddish brown (5 YR 4/4) silty sand with gravel	
100-120 cm	Reddish brown (5 YR 4/4) silty sand with gravel	

Augering: 41DN99 (Cont.)

Provenience	Matrix	Artifacts
Auger Hole 13		
0-20 cm	Brown (10 YR 5/3) silty loam	
20-40 cm	Reddish brown (5 YR 4/4) silty loam	
40-60 cm	Dark brown (10 YR 4/3) sandy clay	
60-80 cm	Brownish yellow (10 YR 6/6) silty clay	
80-100 cm	Light yellowish brown (10 YR 6/4) silty clay	
Auger Hole 14		
0-20 cm	Brown (10 YR 5/3) silty sand	1 flake
20-40 cm	Reddish brown (5 YR 4/4) silty clay	
40-60 cm	Reddish brown (5 YR 4/4) silty clay	
60-80 cm	Reddish brown (5 YR 4/4) silty clay	
80-100 cm	Reddish brown (5 YR 4/4) silty clay	
Auger Hole 15		
0-20 cm	Dark brown (10 YR 4/3) silty loam	
20-40 cm	Reddish brown (5 YR 4/4) silty loam	
40-60 cm	Reddish brown (5 YR 4/4) silty clay	
60-80 cm	Reddish brown (5 YR 4/4) silty clay	
80-100 cm	Reddish brown (5 YR 4/4) silty clay	
Auger Hole 16		
0-20 cm	Dark brown (10 YR 4/3) silty loam	
20-40 cm	Reddish brown (5 YR 4/4) silty clay	
40-60 cm	Reddish brown (5 YR 4/4) sandy clay	
60-80 cm	Reddish brown (5 YR 4/4) sandy clay	
80-100 cm	Reddish brown (5 YR 4/4) silty sand	

Test Unit 1: 41DN99

Level	Depth below surface (cm)	Matrix	Artifacts
1	0-10	Dark brown (10 YR 4/3) sandy loam	22 flakes
2	10-20	Reddish brown (5 YR 4/4) sandy clay loam, some mottling	11 flakes
3	20-30	Reddish brown (5 YR 4/4) sandy clay	
A.L.1	30-50	Reddish brown (5 YR 4/4) sandy clay	
A.L.2	50-70	Reddish brown (5 YR 4/4) sandy clay	
A.L.3	70-90	Reddish brown (5 YR 4/4) sandy clay	
A.L.4	90-110	Reddish brown (5 YR 4/4) sandy clay	
A.L.5	110-130	Reddish brown (5 YR 4/4) sandy clay	
A.L.6	130-150	Brownish yellow (10 YR 6/6) sandy clay	

Test Unit 2: 41DN99

Level	Depth below surface (cm)	Matrix	Artifacts
1	1-10	Dark brown (10 YR 4/3) sandy loam (plow zone)	1 flake
2	10-20	Reddish brown (5 YR 4/4) clay	
3	20-40	Reddish brown (5 YR 4/4) compact clay	
A.L.1	40-60	Reddish brown (5 YR 4/4) sandy clay	
A.L.2	60-80	Brownish yellow (10 YR 6/6)	
A.L.3	80-100	Brownish yellow (10 YR 6/6)	
A.L.4	100-120	Brownish yellow (10 YR 6/6)	
A.L.5	120-140	Brownish yellow (10 YR 6/6)	
A.L.6	140-160	Brownish yellow (10 YR 6/6)	

A.L. = Auger Level

Test Unit 3: 41DN99

Level	Depth below surface (cm)	Matrix	Artifacts
1	0-10	Brown (10 YR 5/3), very sandy silt	4 flakes, 1 point fragment, 1 hammer-stone
2	10-20	Brown (10 YR 5/3) sandy silt	10 flakes
3	20-30	Dark brown (10 YR 4/3) sandy silt	22 flakes, 1 core fragment, 1 point fragment
4	30-40	Dark brown (10 YR 4/3) sandy silt	28 flakes, 1 shell fragment
5	40-50	Dark brown (10 YR 4/3) sandy silt	27 flakes, 1 core fragment, 1 point
6	50-60	Dark brown (10 YR 4/3) sandy silt	5 flakes
7	60-70	Reddish brown (5 YR 4/4) clay	5 flakes
A.L.1	70-90	Reddish brown (5 YR 4/4) clay loam	
A.L.2	90-110	Reddish brown (5 YR 4/4) clay loam	
A.L.3	110-130	Reddish brown (5 YR 4/4) clay loam	
A.L.4	130-150	Reddish brown (5 YR 4/4) sandy clay loam	
A.L.5	150-170	Reddish brown (5 YR 4/4) sandy clay loam	

A.L. = Auger Level

Test Unit 3b: 41DN99

Level	Depth below surface (cm)	Matrix	Artifacts
1	0-10	Dark brown (10 YR 4/3) sand	12 flakes
2	10-20	Dark brown (10 YR 4/3) sand	17 flakes, 2 quartz rocks
3	20-30	Dark brown (10 YR 4/3) sand and mottled clay	20 flakes
4	30-40	Reddish brown (5 YR 4/4) sand and mottled clay	10 flakes
5	40-45	Reddish brown (5 YR 4/4) clay	
A.L.1	45-65	Reddish brown (5 YR 4/4) clay	

A.L. = Auger Level

Test Un 3d: 41DN99

Level	Depth below surface (cm)	Matrix	Artifacts
1	0-10	Dark brown (10 YR 4/3) sandy loam	7 flakes, 1 retouched piece
2	10-20	Dark Brown (10 YR 4/3) sandy loam	11 flakes, point tip
3	20-30	Dark brown (10 YR 4/3) sandy loam with clay	11 flakes, 1 possible groundstone
4	30-40	Dark brown (10 YR 4/3) sandy loam with clay	5 flakes, bone
5	40-50	Dark brown (10 YR 4/3) sandy clay loam	8 flakes
A.L.1	50-70	Reddish brown (5 YR 4/4) clay	

A.L. = Auger Level

Test Unit 4: 41DN99

Level	Depth below surface (cm)	Matrix	Artifacts
1	0-10	Brown (10 YR 5/3) sandy loam	5 flakes, 1 point fragment
2	10-20	Brown (10 YR 5/3) sandy loam	15 flakes, 1 cobble
3	20-30	Reddish brown (5 YR 4/4) sandy clay	
4	30-40	Reddish brown (5 YR 4/4) sandy clay	
A.L.1	40-60	Yellowish red (5 YR 5/6) sandy clay loam	
A.L.2	60-80	Yellowish red (5 YR 5/6) sandy clay loam	
A.L.3	80-100	Yellowish red (5 YR 5/6) sandy clay loam	
A.L.4	100-120	Yellowish red (5 YR 5/6) sandy clay loam	
A.L.5	120-140	Yellowish red (5 YR 5/6) sandy clay loam	

A.L. = Auger Level

Test Unit 5: 41DN99

Level	Depth below surface (cm)	Matrix	Artifacts
1	0-10	Brown (10 YR 5/3) sandy loam	12 flakes
2	10-20	Brown (10 YR 5/3) sandy loam	12 flakes, 1 core?
3	20-30	Reddish brown (5 YR 4/4) clay	
4	30-40	Compact reddish brown (5 YR 4/4) clay	
A.L.1	40-60	Reddish brown (5 YR 4/4) sandy clay loam	
A.L.2	60-80	Yellowish red (5 YR 5/6) sandy clay loam	
A.L.3	80-100	Yellowish red (5 YR 5/6) sandy clay loam	
A.L.4	100-120	Yellowish red (5 YR 5/6) sandy clay loam	
A.L.5	120-140	Yellowish red (5 YR 5/6) sandy clay loam	

A.L. = Auger Level

Test Unit 6: 41DN99

Level	Depth below surface (cm)	Matrix	Artifacts
1	0-10	Brown (10 YR 5/3) sandy loam	14 flakes, 2 fire-cracked rocks
2	10-20	Brown (10 YR 5/3) sandy loam	17 flakes, 1 point, 1 core, 2 fire-cracked rocks
3	20-30	Greyish brown (10 YR 5/2) sandy loam	16 flakes
4	30-40	Greyish brown (10 YR 5/2) sandy loam	7 flakes
5	40-50	Brown (10 YR 5/3) sandy loam	12 flakes
6	50-60	Brown (10 YR 5/3) sandy loam over reddish brown (5 YR 4/4) mottled clay	8 flakes, 1 biface
7	60-70	Reddish brown (5 YR 4/4) clay	2 flakes
A.L.1	70-90	Yellowish red (5 YR 5/6) sandy clay loam	
A.L.2	90-110	Yellowish red (5 YR 5/6) sandy clay loam	
A.L.3	110-130	Brownish yellow (10 YR 6/6) sandy clay loam	
A.L.4	130-150	Brownish yellow (10 YR 6/6) sandy clay loam	
A.L.5	150-170	Brownish yellow (10 YR 6/6) sandy clay loam	

A.L. = Auger Level

Augering: 41DN102

Provenience	Matrix	Artifacts
Auger Hole 1		
0-20 cm	Dark brown (10 YR 4/3) silty loam	2 flakes, charcoal
20-40 cm	Strong brown (7.5 YR 6/6) silty loam	1 flake
40-60 cm	Strong brown (7.5 YR 6/6) silty loam	
60-77 cm	Compact strong brown (7.5 YR 6/6) silt	
Auger Hole 2		
0-20 cm	Dark brown (10 YR 4/3) silty loam	Bone
20-40 cm	Dark brown (10 YR 4/3) silty loam	
40-60 cm	Strong brown (7.5 YR 6/6) clay	
60-80 cm	Strong brown (7.5 YR 6/6) clay	
80-100 cm	Strong brown (7.5 YR 6/6) sandy silt	
100-120 cm	Strong brown (7.5 YR 6/6) sandy clay	
Auger Hole 3		
0-20 cm	Dark brown (10 YR 4/3) silty loam	Mussel shell
20-40 cm	Strong brown (7.5 YR 6/6) silty loam	Bone, mussel shell
40-60 cm	Strong brown (7.5 YR 6/6) silty clay	1 flake, mussel shell
60-80 cm	Strong brown (7.5 YR 6/6) silt	Mussel shell
80-100 cm	Reddish yellow (7.5 YR 6/8) silt	
100-120 cm	Reddish yellow (7.5 YR 6/8) sandy clay	
Auger Hole 4		
0-20 cm	Dark brown (10 YR 4/3) silty clay	
20-40 cm	Dark brown (10 YR 4/3) silty clay	
40-60 cm	Very dark grey (7.5 YR N3/) clay	
60-80 cm	Very dark grey (7.5 YR N3/) clay	
80-100 cm	Very dark grey (7.5 YR N3/) clay	
100-120 cm	Very dark grey (7.5 YR N3/) clay	
Auger Hole 5		
0-20 cm	Black (7.5 YR N2/) loamy clay	2 flakes
20-40 cm	Black (7.5 YR N2/) loamy clay	Bone
40-60 cm	Black (7.5 YR N2/) clay loam	1 flake
60-80 cm	Black (7.5 YR N2/) silty clay loam	
80-100 cm	Dark brown (7.5 YR 3/2) sandy silt	
Auger Hole 6		
0-20 cm	Strong brown (10 YR 4/3) clay	1 flake
20-40 cm	Strong brown (10 YR 4/3) clay	
40-60 cm	Strong brown (10 YR 4/3) clay	
60-80 cm	Strong brown (10 YR 4/3) clay, mottled with light grey (7.5 YR N7/) clay	

Augering: 41DN102 (Cont.)

Provenience	Matrix	Artifacts
Auger Hole 7		
0-20 cm	Dark brown (7.5 YR 4/4) silty clay loam	3 flakes
20-40 cm	Strong brown (7.5 YR 6/6) silty clay loam	1 flake, charcoal
40-60 cm	Strong brown (7.5 YR 6/6) clay loam	Charcoal
60-80 cm	Strong brown (7.5 YR 6/6) sandy clay	Charcoal
80-100 cm	Strong brown (7.5 YR 6/6) sandy silt	1 flake, fire- cracked rock
100-120 cm	Reddish yellow (7.5 YR 6/8) sandy loam	Mammal tooth
120-140 cm	Reddish yellow (7.5 YR 6/8) sandy clay, mottled with light grey (7.5 YR N7/) clay	
Auger Hole 8		
0-20 cm	Dark brown (7.5 YR 4/4) sandy loam	
20-40 cm	Very pale brown (10 YR 7/3) sandy clay loam	
40-60 cm	Strong brown (7.5 YR 6/6) clay	
60-80 cm	Strong brown (7.5 YR 6/6) clay loam	
Auger Hole 9		
0-20 cm	Reddish yellow (7.5 YR 6/8) sandy clay with gravel	
20-40 cm	Reddish yellow (7.5 YR 6/8) sand, grading to silty sand	1 chip
40-60 cm	Reddish yellow (7.5 YR 6/8) clay	
60-80 cm	Reddish yellow (7.5 YR 6/8) sandy clay	
Auger Hole 10		
0-20 cm	Brown (7.5 YR 5/2) silty loam	
20-40 cm	Dark grey (7.5 YR N4/) clay loam	
40-60 cm	Dark brown (7.5 YR 4/2) clay loam	
Auger Hole 11		
0-20 cm	Dark brown (7.5 YR 4/2) silty clay loam	
20-40 cm	Dark grey (7.5 YR N4/) clay	1 flake
40-60 cm	Dark grey (7.5 YR N4/) clay	
60-80 cm	Strong brown (7.5 YR 4/6) silt with gravel	
Auger Hole 12		
0-20 cm	Strong brown (7.5 YR 5/6) silty clay	
20-40 cm	Strong brown (7.5 YR 5/6) silt	
Auger Hole 13		
0-20 cm	Dark brown (7.5 YR 4/2) silty loam with some gravel	5 flakes, bone, charcoal
20-40 cm	Dark brown (7.5 YR 4/2) silty loam	10 flakes, 1 biface

Augering: 41DN102 (Cont.)

Provenience	Matrix	Artifacts
40-60 cm	Strong brown (7.5 YR 5/6) silty sand	1 flake
60-80 cm	Strong brown (7.5 YR 5/6) silty sand	
80-100 cm	Reddish yellow (7.5 YR 6/8) sandy silt	1 flake
100-120 cm	Reddish yellow (7.5 YR 6/8) sandy clay	Burned bone
120-130 cm	Reddish yellow (7.5 YR 6/8) sandy clay, with caliche nodules	
130-140 cm	Reddish yellow (7.5 YR 6/6) silty clay, with some light grey (7.5 YR N7/) clays	1 flake
Auger Hole 14		
0-20 cm	Dark brown (10 YR 4/3) silty loam	5 flakes
20-40 cm	Strong brown (7.5 YR 6/6) silty clay loam	2 flakes
40-60 cm	Strong brown (7.5 YR 6/6) silty loam	
60-80 cm	Strong brown (7.5 YR 6/6) silty loam, grading into reddish yellow (7.5 YR 6/8) silty clay	2 flakes, bone
80-100 cm	Reddish yellow (7.5 YR 6/8) silty clay	2 flakes, bone
100-120 cm	Strong brown (7.5 YR 6/6) silty clay	1 flake
120-140cm	Reddish yellow (7.5 YR 6/6) clay with some light grey (7.5 YR N7/) clay	
Auger Hole 15		
0-20 cm	Strong brown (7.5 YR 6/6) silty loam	8 flakes
20-40 cm	Strong brown (7.5 YR 6/6) to brown silty clay	3 flakes
40-60 cm	Reddish yellow (7.5 YR 6/6) silty clay	
60-80 cm	Reddish yellow (7.5 YR 6/6) silty clay	
80-100 cm	Reddish yellow (7.5 YR 6/6) silty sand	

Test Unit 1: 41DN102

Level	Depth below surface (cm)	Matrix	Artifacts
1	0-10	Dark brown (10 YR 4/3) sandy silty loam	27 flakes, 1 bifacial blade fragment, 18 fire-cracked rocks
2	10-20	Dark brown (10 YR 4/3) sandy silty loam	35 flakes, 1 hammer- stone, 1 broken cobble, 22 fire-cracked rocks
3	20-30	Dark brown (10 YR 4/3) sandy silty loam	26 flakes, 1 biface fragment, 1 cobble, 1 core fragment, 1 point 21 fire-cracked rocks
4	30-40	Dark brown (10 YR 4/3) sandy loam	17 flakes, 1 biface 23 fire-cracked rocks
5	40-50	Dark brown (10 YR 4/3), grading to reddish yellow (7.5 YR 6/6)	10 flakes
6	50-70	Reddish yellow (7.5 YR 6/6) sandy loam	9 flakes
A.L.1	70-90	Reddish yellow (7.5 YR 6/6) sandy loam	
A.L.2	90-110	Reddish yellow (7.5 YR 6/6) sandy loam	
A.L.3	110-130	Reddish yellow (7.5 YR 6/6) sandy loam	
A.L.4	130-150	Reddish yellow (7.5 YR 6/6) sandy loam	
A.L.5	150-170	Reddish yellow (7.5 YR 6/6) sandy clay loam	

A.L. = Auger Level

Test Unit 2: 41DN102

Level	Depth below surface (cm)	Matrix	Artifacts
1	0-10	Very pale brown (10 YR 7/3) sandy loam	16 flakes, 1 point, 21 bone fragments
2	10-20	Brown (10 YR 4/3) sandy loam	19 flakes, 4 bone fragments
3	20-30	Mottled brown (10 YR 4/3) sandy loam	10 flakes, 21 fragments, 5 shell fragments
4	30-50	Mottled strong brown (7.5 YR 5/6) sandy loam	11 flakes, 1 biface, 2 bone fragments
A.L.1	50-70	Strong brown (7.5 YR 5/6) sandy loam	
A.L.2	70-90	Strong brown (7.5 YR 5/6) sandy loam	1 bone fragment
A.L.3	90-110	Strong brown (7.5 YR 5/6) sandy loam	2 chips
A.L.4	110-126	Strong brown (7.5 YR 5/6) sandy loam	
A.L.5	126-146	Strong brown (7.5 YR 5/6) sandy loam	

A.L. = Auger Level

Test Unit 3: 41DN102

Level	Depth below surface (cm)	Matrix	Artifacts
1	0-10	Dark brown (10 YR 3/3) sandy loam	20 flakes, 1 point, 6 fire-cracked rocks, bone
2	10-20	Dark brown (10 YR 3/3) sandy loam with charcoal flecks	37 flakes, 2 points, bone
3	20-30	Mottled strong brown (7.5 YR 5/6) sandy clay loam, some charcoal staining	5 flakes, 1 bone, 1 fire-cracked rock
4	30-40	Strong brown (7.5 YR 5/6) sandy clay loam	1 bone
A.L.1	40-60	Strong brown (7.5 YR 5/6) sandy clay loam	
A.L.2	60-80	Strong brown (7.5 YR 5/6) sandy clay loam	
A.L.3	80-100	Strong brown (7.5 YR 5/6) sandy clay loam	
A.L.4	80-92	Reddish yellow (7.5 YR 6/6) sandy clay loam	
A.L.5	92-112	Reddish yellow (7.5 YR 6/6) sandy clay loam	

A.L. = Auger Level

Test Unit 4: 41DN102

Level	Depth below surface (cm)	Matrix	Artifacts
1	0-10	Brown (10 YR 4/3) sandy loam with large amount of gravel	69 flakes, 1 fire-cracked rock
2	10-20	Dark brown (10 YR 3/3) sandy loam with some gravel	21 flakes, 1 point fragment, 10 fire-cracked rocks, 1 shell
3	20-30	Dark brown (10 YR 3/3) silty clay loam	19 flakes (1 flake in lower ½)
4	30-50	Brown (10 YR 4/3) clay loam	20 flakes, bone
5a	50-60	Light yellowish brown (10 YR 6/4) silty loam	21 flakes
5b	60-70	Light yellowish brown (10 YR 6/4) silty loam	5 flakes, 1 biface, 1 point
6	70-80	Light yellowish brown (10 YR 6/4) sandy silty clay, dark brown mottling with charcoal	10 flakes, 1 fire-cracked rock
7	80-90	Light brown (7.5 YR 6/4) sandy clay loam	15 flakes
8	90-100	Sandy light brown (7.5 YR 6/4) clay with some gravel	4 flakes, bone
9	100-120	Light brown (7.5 YR 6/4) sandy clay loam with gravel	5 flakes, 1 bone
A.L.1	120-140	Strong brown (7.5 YR 5/6) clay	
A.L.2	140-160	Mottled strong brown (7.5 YR 5/6) sandy clay	
A.L.3	160-180	Mottled strong brown (7.5 YR 5/6) sandy clay	
A.L.4	180-200	Mottled strong brown (7.5 YR 5/6) sandy clay	

A.L. = Auger Level

Test Unit 5: 41DN102

Level	Depth below surface (cm)	Matrix	Artifacts
1	0-10	Very pale brown (10 YR 7/3) sandy silty loam	16 flakes, 2 potsherds
2	10-20	Very dark greyish brown (10 YR 3/2) sandy silty loam	19 flakes
3	20-30	Very dark greyish brown (10 YR 3/2) sandy silty loam	14 flakes, 1 broken cobble, bone
4	30-40	Strong brown (7.5 YR 5/6) sandy clay loam	5 flakes
A.L.1	40-60	Strong brown (7.5 YR 5/6) sandy clay loam	
A.L.2	60-80	Strong brown (7.5 YR 5/6) sandy clay loam	
A.L.3	80-100	Strong brown (7.5 YR 5/6) sandy clay loam	
A.L.4	100-120	Strong brown (7.5 YR 5/6) sandy clay loam	
A.L.5	120-125	Hard packed strong brown (7.5 YR 5/6) clay	

A.L. = Auger Level

Test Unit 6: 41DN102

Level	Depth below surface (cm)	Matrix	Artifacts
1	0-10	Disturbed dark yellowish brown (10 YR 4/6) sandy loam	12 flakes, bone, shell
2	10-20	Dark brown (10 YR 3/3) sandy loam	Flakes, much bone
3	20-30	Dark brown (10 YR 3/3) sandy loam	11 flakes, bone
4	30-40	Dark brown (10 YR 3/3) sandy loam	5 flakes, bone
5	40-50	Yellowish brown (10 YR 4/4) sandy loam	10 flakes, biface, bone, shell

Test Unit 7: 41DN102

Level	Depth below surface (cm)	Matrix	Artifacts
1	0-10	Dark brown (10 YR 3/4) sandy loam	Flakes, bone, projectile point
2	10-20	Dark brown (10 YR 3/4) sandy loam	Flakes, bone, charred bone
3	20-30	Dark yellowish brown (10 YR 4/6) sandy clay loam	Flakes, bone charred bone
4	30-40	Dark yellowish brown (10 YR 4/6) sandy clay loam	Human tooth, bone, shell
5	40-55	Dark yellowish brown (10 YR 4/6) clay loam	Bone, flake

Test Unit 8: 41DN102

Level	Depth below surface (cm)	Matrix	Artifacts
1	0-10	Dark brown (10 YR 3/3) sandy loam	Biface, flakes, bone, burnt bone
2	10-20	Dark brown (10 YR 3/3) sandy loam	Flakes, bone, shell, projectile point base
3	20-30	Brown (10 YR 4/3) sandy loam	8 flakes, 2 cores

Test Unit 8b: 41DN102

Level	Depth below surface (cm)	Matrix	Artifacts
1	0-20	Dark brown (10 YR 3/3) sandy loam	Bone, tooth
2	20-30	Dark brown (10 YR 3/3) sandy loam	Bone, flakes, burned bone
3	30-33	Dark brown (10 YR 3/3) sandy loam	

Test Unit 9: 41DN102

Level	Depth below surface (cm)	Matrix	Artifacts
1	0-10	Very dark grey (10 YR 3/1) sandy loam	Flakes, fired rocks
2	10-20	Very dark grey (10 YR 3/1) sandy loam	Flakes
3	20-30	Dark brown (10 YR 4/3) sandy loam	Flakes, core
4	30-40	Yellowish brown (10 YR 5/4) loamy clay	Flakes, bone, charcoal

Test Unit 10: 41DN102

Level	Depth below surface (cm)	Matrix	Artifacts
1	0-10	Very pale brown (10 YR 7/3) sandy loam	Flakes
2	10-20	Very pale brown (10 YR 7/3) sandy loam	Flakes, fired rocks
3	20-30	Very dark greyish brown (10 YR 3/2) sandy loam	Quartz cobble, flakes
4	30-45	Strong brown (7.5 YR 5/6) loamy clay	Flakes

Test Unit 11: 41DN102

Level	Depth below surface (cm)	Matrix	Artifacts
1	0-15	Mottled very pale brown (10 YR 7/3) sandy loam	Flakes, bone, ground-stone
2	15-25	Dark brown (10YR 3/3) sandy loam	Flakes, bone, biface fragment, fire-cracked rock
3	25-35	Dark brown (10 YR 3/3) sandy loam	Projectile points, shell, flakes, bone, fire-cracked rock
4	35-45	Dark brown (10 YR 3/3) sandy loam	Projectile point, flakes, bone, fire-cracked rock
5	45-55	Dark brown (10 YR 3/3) sandy loam	Ceramics, flakes, bone, fire-cracked rock, shell
6	55-66	Dark yellowish brown (10 YR 3/4) sandy loam	Projectile point, bone, shell, flakes, fire-cracked rock
7	66-77	Dark yellowish brown (10 YR 3/4) sandy loam	Flakes, bone, shell, fire-cracked rock
8	77-91	Dark yellowish brown (10 YR 3/4) sandy loam	Flakes, bone

Augering: 41DN103

Provenience	Matrix	Artifacts
Auger Hole 1		
0-20 cm	Very dark grey (10 YR 3/1) clay	
20-40 cm	Dark greyish brown (10 YR 4/2) clay	
40-60 cm	Dark greyish brown (10 YR 4/2) clay	
60-80 cm	Very dark grey (10 YR 3/1) clay	
80-100 cm	Very dark grey (10 YR 3/1) clay	
Auger Hole 2		
0-20 cm	Very dark grey (10 YR 3/1) clay	
20-40 cm	Dark greyish brown (10 YR 4/2) clay	
40-60 cm	Very dark grey (10 YR 3/1) clay	
60-80 cm	Very dark grey (10 YR 3/1) clay	
80-100 cm	Very dark grey (10 YR 3/1) clay	
Auger Hole 3		
0-20 cm	Very dark grey (10 YR 3/1) clay	
20-40 cm	Very dark grey (10 YR 3/1) clay	
40-60 cm	Very dark grey (10 YR 3/1) clay	
60-80 cm	Very dark grey (10 YR 3/1) clay	
80-100 cm	Very dark grey (10 YR 3/1) clay	
Auger Hole 4		
0-20 cm	Very dark grey (10 YR 3/1) clay	
20-40 cm	Very dark grey (10 YR 3/1) clay	1 flake
40-60 cm	Very dark grey (10 YR 3/1) clay	
60-80 cm	Very dark greyish brown (10 YR 3/2) clay	
80-100 cm	Very dark greyish brown (10 YR 3/2) clay	
Auger Hole 5		
0-20 cm	Very dark grey (10 YR 3/1) clay	1 flake
20-40 cm	Very dark grey (10 YR 3/1) clay	
40-60 cm	Dark greyish brown (10 YR 4/2) clay	
60-80 cm	Dark greyish brown (10 YR 4/2) clay	
80-100 cm	Dark brown (10 YR 3/3) clay	
Auger Hole 6		
0-20 cm	Very dark grey (10 YR 3/1) clay	
20-40 cm	Dark greyish brown (10 YR 4/2) clay	
40-60 cm	Very dark greyish brown (10 YR 3/2) clay	
60-80 cm	Dark brown (10 YR 3/3) clay	
80-100 cm	Dark greyish brown (10 YR 4/2) clay	
100-120 cm	Dark greyish brown (10 YR 4/2) clay with some gravel	
120-140 cm	Dark greyish brown (10 YR 4/2) clay with caliche and gravel	

Augering: 41DN103 (Cont.)

Provenience	Matrix	Artifacts
Auger Hole 7		
0-20 cm	Very dark grey (10 YR 3/1) clay	
20-40 cm	Very dark grey (10 YR 3/1) clay	
40-60 cm	Very dark brown (10 YR 2/2) clay	
60-80 cm	Dark greyish brown (10 YR 4/2) clay	
80-100 cm	Dark greyish brown (10 YR 4/2) clay	
Auger Hole 8		
0-20 cm	Very dark grey (10 YR 3/1) clay	1 flake
20-40 cm	Pale brown (10 YR 6/3) clay with mottling	
40-60 cm	Dark greyish brown (10 YR 4/2) clay	
60-80 cm	Dark greyish brown (10 YR 4/2) clay	
80-100 cm	Very dark brown (10 YR 2/2) clay	
Auger Hole 9		
0-20 cm	Very dark grey (10 YR 3/1) clay	
20-40 cm	Very dark greyish brown (10 YR 3/2) clay	
40-60 cm	Dark greyish brown (10 YR 4/2) clay	
60-80 cm	Very dark greyish brown (10 YR 3/2) clay	
800-100 cm	Very dark brown (10 YR 2/2) clay	
Auger Hole 10		
0-20 cm	Very dark greyish brown (10 YR 3/2) clay	
20-40 cm	Very dark greyish brown (10 YR 3/2) clay	
40-60 cm	Dark greyish brown (10 YR 4/2) clay	
60-80 cm	Dark greyish brown (10 YR 4/2) clay	
80-100 cm	Dark greyish brown (10 YR 4/2) clay	

Test Unit 1: 41DN103

Level	Depth below surface (cm)	Matrix	Artifacts
1	0-10	Very dark grey (10 YR 3/1) humic loamy clay	
2	10-30	Compact very dark grey (10 YR 3/1) clay	Bone
A.L.1	30-50	Very dark grey (10 YR 3/1) clay	
A.L.2	50-70	Very dark grey (10 YR 3/1) clay	Core
A.L.3	70-90	Very dark grey (10 YR 3/1) clay	
A.L.4	90-120	Dark brown (10 YR 3/3) clay	
A.L.5	120-140	Dark brown (10 YR 3/3) clay	

A.L. = Auger Level

Test Unit 2: 41DN103

Level	Depth below surface (cm)	Matrix	Artifacts
1	0-10	Dark brown (10 YR 3/3) loam	
2	10-30	Very dark greyish brown (10 YR 3/2) clay loam	
3	30-50	Dark brown (10 YR 3/3) clay loam	
4	50-60	Dark brown (10 YR 3/3) clay loam with pale brown (10 YR 6/3) clay	Animal tooth
5	60-70	Very dark greyish brown (10 YR 3/2) clay loam	Charcoal

Test Unit 3: 41DN103

Level	Depth below surface (cm)	Matrix	Artifacts
1	0-10	Very dark greyish brown (10 YR 3/2) clay loam	Shell, fire-cracked rock, flakes
2	10-20	Very dark greyish brown (10 YR 3/2) clay loam	Bone, shell, flakes, fired rocks
3	20-40	Very dark greyish brown (10 YR 3/2) clay loam	Shell, 1 flake, fire-cracked rock
4	40-60	Very dark grey (10 YR 3/1) clay loam	Flakes, shell, bone, fire-cracked rocks
5	60-70	Very dark grey (10 YR 3/1) clay loam	Flakes, shell, charcoal, bone, fire-cracked rocks
6	70-80	Very dark greyish brown (10 YR 3/2) clay loam	Shell, bone, flakes
7	80-90	Dark brown (10 YR 3/3) clay loam with brown (10 YR 5/3) clay	Flakes, shell, bone

Augering: 41DN112

Provenience	Matrix	Artifacts
Auger Hole 1		
0-20 cm	Dark brown (10 YR 3/3) sandy loam	2 flakes
20-40 cm	Dark brown (10 YR 3/3) sandy loam	3 flakes, 4 bone, shell
40-60 cm	Brown (10 YR 5/3) sandy loam with caliche and gravel	Shell
60-80 cm	Brown (10 YR 5/3) sandy loam with caliche and gravel	
80-92 cm	Brown (10 YR 5/3) sandy loam with caliche and gravel	
Auger Hole 2		
0-20 cm	Pale brown (10 YR 6/3) clay with high gravel content	
20-40 cm	Light brownish grey (10 YR 6/2) clay with gravel	
40-60 cm	Grey (10 YR 5/1) clay with some gravel	
60-80 cm	Grey (10 YR 5/1) clay -	
80-95 cm	Grey (10 YR 5/1) sandy clay	
Auger Hole 3		
0-20 cm	Dark brown (10 YR 3/3) sandy loam	
20-40 cm	Dark brown (10 YR 3/3) sandy loam	
40-60 cm	Dark brown (10 YR 3/3) sandy loam	
60-80 cm	Brown (10 YR 4/3) sandy loam	1 flake
80-100 cm	Brown (10 YR 4/3) sandy loam	2 flakes
Auger Hole 4		
0-20 cm	Brown (10 YR 5/3) sandy loam	
20-40 cm	Brown (10 YR 5/3) sandy loam with caliche nodules	
40-60 cm	Brown (10 YR 5/3) sandy clay loam with caliche nodules	
60-80 cm	Brown (10 YR 5/3) sandy clay loam with clay nodules	
80-95 cm	Brown (10 YR 5/3) sandy clay loam with caliche nodules	1 flake (?)
Auger Hole 5		
0-20 cm	Dark brown (10 YR 3/3) clay loam	9 glass, 1 historic ceramic, 1 flake 1 shell casing
20-40 cm	Dark brown (10 YR 3/3) clay loam with caliche nodules	2 glass, 1 flake
Auger Hole 6		
0-20 cm	Dark brown (10 YR 3/3) sandy clay loam	
20-40 cm	Dark brown (10 YR 3/3) to pale brown (10 YR 6/3) clay loam	

Test Unit 1: 41DN112

Level	Depth below surface (cm)	Matrix	Artifacts
1	0-10	Dark brown (10 YR 3/3) clay loam	24 flakes, 1 point fragment, 1 sherd, 3 cobbles, 1 wire fragment, 1 shell
2	10-20	Dark brown (10 YR 3/3) sandy loam	85 flakes, 7 sherds, 1 biface, 1 retouched piece, 39 bone, 80 shell, fire-cracked rock
3	20-30	Dark brown (10 YR 3/3) sandy loam with rock concentration	11 flakes, 1 retouched piece, 2 sherds, 1 cobble, 6 fire-cracked rocks, 186 shell
4	30-40	Brown (10 YR 5/3) sandy loam with gravel	12 flakes 55 shell
5	40-50	Brown (10 YR 5/3) sandy loam with gravel and caliche nodules	9 shell
6	50-60	Brown (10 YR 5/3) sandy loam with gravel and caliche nodules	
A.L.1	60-80	Yellowish brown (10 YR 5/4) sandy clay with gravel	
A.L.2	80-94	Yellowish brown (10 YR 5/4) sandy clay with gravel	
	94 +	Impenetrable gravel	

A.L. = Auger Level

Test Unit 1b: 41DN112

Level	Depth below surface (cm)	Matrix	Artifacts
1	0-10	Dark yellowish brown (10 YR 3/4) sandy loam	Chert point tip, chert flakes, nail, quartzite flakes, pottery, glass, bone fragments, historic ceramics, mussell shell
2	10-20	Dark yellowish brown (10 YR 3/4) sandy loam	2 teeth, 1 projectile point, bone fragments, flakes, pottery, charcoal
3	20-30	Dark yellowish brown (10 YR 3/4) sandy loam	63 burnt rocks, mussell shell, flakes, charcoal, bone
4	30-40	Yellowish brown (10 YR 5/4) sandy loam	Mussell shell, bone, flakes, burnt rock, 1 projectile point, cores
5	40-50	Dark yellowish brown (10 YR 4/4) compact loam mottled with gravel and caliche	Flakes, core, mussell shell, charcoal

Test Unit 1c: 41DN112

Level	Depth below surface (cm)	Matrix	Artifacts
1	0-10	Dark greyish brown (10 YR 4/2) silty loam	Flakes, metal, glass
2	10-20	Dark brown (10 YR 3/3) silty loam	Projectile point, shell flakes, lithic shatter, glass
3	20-30	Dark brown (10 YR 3/3) silty loam	Flakes, bone, shell
4	30-40	Dark brown (10 YR 3/3) silty loam	Flakes, shell
5	40-50	Dark brown (7.5 YR 4/4) clay loam	Shell, flakes

Test Unit 2: 41DN112

Level	Depth below surface (cm)	Matrix	Artifacts
1	0-10	Dark brown (10 YR 3/3), compact clay	1 cobble, 3 retouched pieces, 36 flakes, 4 sherds, 4 shell, charcoal
2	10-20	Dark brown (10 YR 3/3) clay loam	Glass, 83 flakes, 3 cobbles, 1 core fragment, 4 retouched pieces, 1 scraper, 13 shell, 2 bone, 1 sherd, charcoal
3	20-30	Dark brown (10 YR 3/3) clay loam	38 flakes, 2 retouched flakes, 1 point, 1 sandstone knife, 1 drill, 1 cobble, 1 core, 16 shell, 5 bone, charcoal
4	30-40	Dark brown (10 YR 3/3) sandy silty loam	12 flakes, 4 retouched pieces, 1 sherd, 94 shell, 1 biface tip, 1 bone, fire-cracked rock
5	40-50	Brown (10 YR 5/3) sandy silty loam	7 flakes, 1 retouched piece, 1 biface, 1 cobble, 91 shell
6	50-60	Brown (10 YR 5/3) sandy silty loam with caliche nodules	1 sherd?, 1 point base, 33 shell

Test Unit 2: 41DN112 (Cont.)

Level	Depth below surface (cm)	Matrix	Artifacts
7	60-70	Brown (10 YR 5/3) sandy silty loam with caliche nodules	3 flakes, 24 shell
8	70-80	Yellowish brown (10 YR 5/4) sandy clay with sterile gravel at base	1 flake, 71 shell
A.L.1	80-100	Yellowish brown (10 YR 5/4) sandy clay with gravel	
A.L.2	100-120	Yellowish brown (10 YR 5/4) sandy clay with gravel	
A.L.3.	120-140	Yellowish brown (10 YR 5/4) sandy clay with gravel	
A.L.4	140-160	Yellowish brown (10 YR 5/4) sandy clay with gravel -	
A.L.5	160-180	Yellowish brown (10 YR 5/4) sandy clay with gravel	

A.L. = Auger Level

Test Unit 3: 41DN112

Level	Depth below surface (cm)	Matrix	Artifacts
1	0-10	Brown (10 YR 5/3) sandy loam	Glass, wire, metal, shell, flakes
2	10-20	Very dark greyish brown (10 YR 3/2) mottled silty clay	Glass, metal, bone, shell, flakes
3	20-35	Very dark greyish brown (10 YR 3/2) mottled silty clay	Shell-tempered pottery,
	35-40	Dark brown to brown (7.5 YR 4/4) sandy clay	Shell, flakes, charcoal, fire-cracked rock

Test Unit 4: 41DN112

Level	Depth below surface (cm)	Matrix	Artifacts
1	0-10	Dark brown to brown (10 YR 4/3) clay loam	Historic ceramics, glass, metal, flakes, lithic shatter, hammerstone, fire-cracked rock, shell
2	10-20	Dark brown to brown (10 YR 4/3) clay loam	Glass, metal, shell-tempered sherd, biface fragment, shell, flakes
3	20-30	Dark brown to brown (10 YR 4/3) sandy loam	Wire, nails, glass, flakes, Gary points
4	30-40	Dark brown to brown (10 YR 3/4) clay loam	Flakes
5	40-50	Dark yellowish brown (10 YR 4/4) clay loam	

Augering: 41DN217

Provenience	Matrix	Artifacts
Shovel Test 1 0-10	Brown (10 YR 5/3) sandy loam heavily intermixed with brownish yellow (10 YR 6/6) sandy loam	
Shovel Test 2 0-25 cm	Dark brown (10 YR 3/3) loose sandy loam	
Shovel Test 3 0-30 cm	Dark brown (10 YR 3/3) sandy loam (possible midden deposit)	1 interior quartzite flake, hematite
Shovel Test 4 0-10 cm 10-20 cm	Brown (10 YR 5/3) sandy loam Dark brown (10 YR 3/3) sandy loam (possible midden deposit)	1 quartzite flake
Shovel Test 5 0-30 cm	Brown (10 YR 5/3) sandy loam	
Shovel Test 6 0-10 cm 10-20 cm	Brown (10 YR 5/3) compact sandy loam Dark brown (10 YR 3/3) loose sandy loam	
Shovel Test 7 0-10 cm 10-20 cm	Brown (10 YR 5/3) sandy loam Dark brown (10 YR 3/3) sandy loam	1 complete mussel shell
Shovel Test 8 0-20 cm	Compact brown (10 YR 5/3) sandy loam	
Shovel Test 9 0-20 cm	Compact brown (10 YR 5/3) sandy loam mottled with clay	
Shovel Test 10 0-25 cm	Dark brown (10 YR 3/3) sandy loam	
Shovel Test 11 0-25 cm	Dark brown (10 YR 3/3) loose sandy loam	

Test Unit 1: 41DN217

Level	Depth below surface (cm)	Matrix	Artifacts
1	0-10	Dark brown (10 YR 3/3) sandy loam	2 quartzite flakes, 1 piece of shell
2	10-20	Dark brown (10 YR 3/3) sandy loam with a heavy lense of gravel	13 quartzite flakes, 2 chert flakes, 1 quartzite hammerstone
3	20-40	Dark brown (10 YR 3/3) sandy loam with some gravel	9 quartzite flakes, 2 chert flakes, 1 charcoal
4	40-50	Brown (10 YR 5/3) sandy loam	1 chert flake, 5 quartzite flakes, 1 chert point tip
5	50-60	Pale brown (10 YR 6/3) compact sand	

APPENDIX 4

**Stratigraphic results of subsurface testing (augering and
test-pitting) at historic archaeological sites.**

Test Unit 100: 41DN76

Level	Depth below surface (cm)	Matrix	Artifacts
1	0-10	Brown (10 YR 5/3) clay loam	
2	10-30	Brown (10 YR 5/3) clay loam	
3	30-50	Dark brown (10 YR 3/3) clay loam with gravel and small stones	Historic, 1 core
4	50-70	Dark greyish-brown (10 YR 4/2) clay with caliche and charcoal	Historic, bone
5	70-90	Dark greyish-brown (10 YR 4/2) clay with caliche and charcoal	Historic
6	90-94	Brown (10 YR 5/3) clay mottled with caliche and charcoal	Shell

Augering: 41DN77

Provenience	Matrix	Artifacts
Auger Hole 1		
0-20 cm	Brown clay (10 YR 5/3) loam	
20-40 cm	Yellowish brown (10 YR 5/4) clay loam	Wire, nails, and glass
40-60 cm	Brownish yellow (10 YR 6/6) clay loam, with gravel	Glass and 1 nail
60-80 cm	Brownish yellow (10 YR 6/6) clay loam, with gravel	Historic ceramics and 1 nail
80-100 cm	Brownish yellow (10 YR 6/6) clay loam, with orange mottling and gravel	1 square nail
100-120 cm	Brownish yellow (10 YR 6/6) clay loam, with gravel and grey clay mottling	Glass
120-132 cm	Brownish yellow (10 YR 6/6) silty clay	
Auger Hole 2		
0-20 cm	Dark yellowish brown (10 YR 4/4) silty loam, sparse gravel	
20-40 cm	Brownish yellow (10 YR 6/6) silty clay, less gravel	
40-60 cm	Brownish yellow (10 YR 6/6) silty clay, small amount of gravel	
Auger Hole 3		
0-20 cm	Dark brown silty (10 YR 5/3) loam, no gravel	
20-30 cm	Brownish yellow (10 YR 6/6) fine sandy loam	
26 cm	Large rock	
Auger Hole 4		
0-20 cm	Dark brown (10 YR 5/3) clay loam	
20-40 cm	Dark brown (10 YR 5/3) clay loam, more gravel	
Auger Hole 5		
0-20 cm	Dark brown (10 YR 5/3) clay silt	Metal, glass, and nail
20-40 cm	Yellowish brown (10 YR 5/6) clay	
40-60 cm	Reddish yellow (7.5 YR 5/5) clay loam	
Auger Hole 6		
0-20 cm	Strong brown (7.5 YR 5/6) clay silt, with gravel	
20-40 cm	Reddish yellow (7.5 YR 6/8) clay loam, with gravel	
Auger Hole 7		
0-20 cm	Dark brown (10 YR 5/3) clay loam, with gravel	
20-40 cm	Yellowish brown (10 YR 5/6) clay loam, less gravel	

Augering: 41DN77 (Cont.)

Provenience	Matrix	Artifacts
Auger Hole 8		
0-20 cm	Dark greyish brown (10 YR 4/2) clay silt	
20-40 cm	Greyish brown (10 YR 5/2) clay silt	
Auger Hole 9		
0-20 cm	Yellowish brown (10 YR 5/4) clay loam, little gravel	
20-40 cm	Light yellowish brown (10 YR 6/4) clay loam	
Auger Hole 10		
0-20 cm	Dark brown (10 YR 3/3) clay loam with gravel	
20-40 cm	Orangish-brown clay loam, less gravel	
Auger Hole 11		
0-20 cm	Brown (10 YR 5/3) silty clay loam, little gravel	Glass, historic ceramics and nails
20-40 cm	Strong brown (7.5 YR 4/6) clay loam, less gravel	
40-60 cm	Very compact strong brown (7.5 YR 4/6) clay	
Auger Hole 12		
0-20 cm	Greyish brown (10 YR 5/2) clay loam	
20-40 cm	Yellowish brown (10 YR 5/4) clay, with gravel	
40-60 cm	Yellowish brown (10 YR 5/4) clay, small gravel	
60-80 cm	Yellowish brown (10 YR 5/4) clay, large gravel	
80-100 cm	Yellowish brown (10 YR 5/4) clay, with gravel	
100-120 cm	Yellowish brown (10 YR 5/4) clay, little gravel	

Test Unit 1: 41DN77

Level	Depth below surface (cm)	Matrix	Artifacts
1	0-10	Dark brown (10 YR 3/3) clay	Historic
2	10-20	Dark greyish brown (10 YR 4/2) clay	Historic
3	20-30	Dark brown (10 YR 3/3) clay mixed with clay loam	Historic
4	30-40	Very dark brown (10 YR 2/2) clay mingled with gravels, sandstone and hematite	Historic
5	40-60	Olive brown (2.5 Y 4/4) clay mottled with caliche and hematite	Historic
6	60-80	Olive brown (2.5 Y 4/4) clay	Historic
7	80-100	Olive brown (2.5 Y 4/4) mottled clay	Historic
8	100-114	Olive brown (2.5 Y 4/4) mottled clay	Historic

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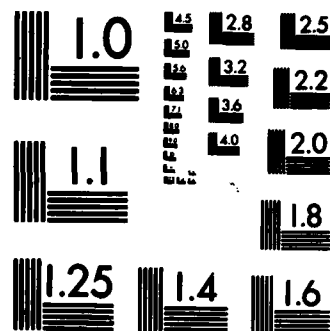
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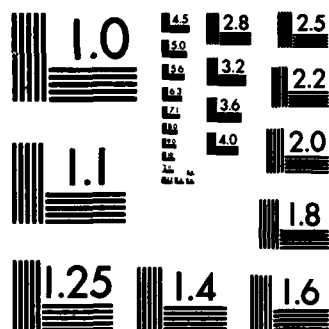
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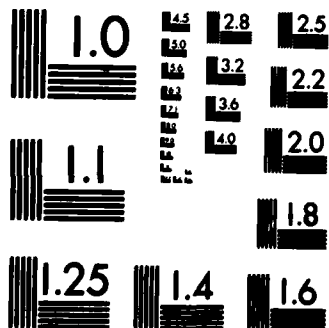
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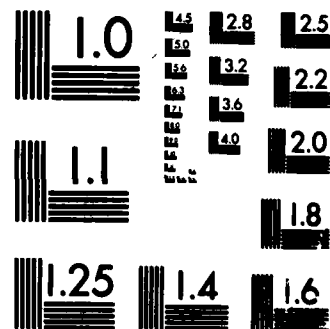
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Augering, Area A: 41DN87

Provenience	Matrix	Artifacts
Auger Hole		
0-20	Brown to dark brown (10 YR 4/3) clay loam	Ceramics, metal
20-40 cm	Brown to dark brown (10 YR 4/3) clay loam	Ceramics
40-60 cm	Dark yellowish brown (10 YR 4/6) clay loam	
60-80 cm	Dark yellowish brown (10 YR 4/6) clay loam	
Shovel Test 1		
0-37 cm	Brown (10 YR 5/3) silty clay	
Shovel Test 2		
0-40 cm	Brown (10 YR 5/3) clay loam, grading into grey (10 YR 5/1) clay	Glass, brick
Shovel Test 3		
0-39 cm	Brown (10 YR 5/3) clay loam	

Augering, Area B: 41DN87

Provenience	Matrix	Artifacts
Auger Hole		
0-20 cm	Dark brown (10 YR 3/3) silty loam	
20-40 cm	Dark yellowish brown (10 YR 4/6) silty loam	
40-60 cm	Strong brown (7.5 YR 4/6) clay loam	
60-80 cm	Strong brown (7.5 YR 4/6) clay loam	
Shovel Tet 1		
0-20 cm	Brown (10 YR 5/3) silty loam	Nail, ceramics
20-40 cm	Brown (10 YR 5/3) silty loam	
Shovel Test 2		
0-20 cm	Brown (10 YR 5/3) silty loam	Glass, metal, ceramics
20-40 cm	Brown (10 YR 5/3) silty loam	
Shovel Test 3		
0-20 cm	Brown (10 YR 5/3) clay loam	Glass
20-40 cm	Brown (10 YR 5/3) clay loam	

Augering, Area C: 41DN87

Provenience	Matrix	Artifacts
Auger Hole 1		
0-20 cm	Brown (10 YR 5/3) compact clay	Glass; point base
20-40 cm	Strong brown (7.5 YR 5/6) clay	Ceramics
40-60 cm	Strong brown (7.5 YR 5/6) clay	Glass
60-80 cm	Strong brown (7.5 YR 5/6) clay	
Auger Hole 2		
0-20 cm	Brown (10 YR 5/3) clay loam	Glass
20-40 cm	Pale brown (10 YR 6/3) clay with caliche inclusions	Glass
40-60 cm	Brownish yellow (10 YR 6/6) clay	Glass
60-80 cm	Light yellowish brown (10 YR 6/4) clay	
Shovel Test 1		
0-20 cm	Brown (10 YR 5/3) clay with caliche flecks	Wire, ceramics
20-40 cm	Brown (10 YR 5/3) clay with caliche flecks	Nail, glass, metal
Shovel Test 2		
0-20 cm	Brown (10 YR 5/3) clay	
20-40 cm	Strong brown (7.5 YR 5/6) clay with caliche flecks	
Shovel Test 3		
0-20 cm	Strong brown (7.5 YR 5/6) clay loam	
20-40 cm	Strong brown (7.5 YR 5/6) silty loam	

Augering, Area D: 41DN87

Provenience	Matrix	Artifacts
Auger Hole 1		
0-20 cm	Pale brown (10 YR 6/3) clay loam with caliche flecks	Glass, nail, metal
20-40 cm	Pale brown (10 YR 6/3) clay loam with caliche	Glass, ceramics
40-60 cm	Light yellowish brown (10 YR 6/4) clay with caliche	Glass, brick
60-80 cm	Light brownish grey (10 YR 6/2) clay with caliche	
Auger Hole 2		
0-20 cm	Brown (10 YR 5/3) clay loam with caliche	Glass, metal, nail
20-40 cm	Brown (10 YR 5/3) clay loam with caliche	Metal wire
40-60 cm	Light brownish grey (10 YR 6/2) loam	
Auger Hole 3		
0-20 cm	Greyish brown (10 YR 5/2) clay loam	Dense charcoal, with numerous artifacts
20-40 cm	Brownish yellow (10 YR 6/6) clay	Glass, metal
40-60 cm	Brown (7.5 YR 5/4) clay	Glass
60-80 cm	Brown (7.5 YR 5/4) clay	
Auger Hole 4		
0-20 cm	Brown (10 YR 5/3) clay loam	Glass, concrete
20-40 cm	Light brown (7.5 YR 6/4) clay loam with caliche	
40-60 cm	Reddish yellow (7.5 YR 6/6) clay with caliche	
60-80 cm	Reddish yellow (7.5 YR 6/8) clay with caliche	
Shovel Test 1		
0-13 cm	Hard-packed limestone gravel in brown (7.5 YR 5/4) to strong brown (7.5 YR 5/6) silty clay loam	Large limestone rock at 4 cm.
Shovel Test 2		
0-20 cm	Brown (10 YR 5/3) clay loam	Glass, metal, nails
20-40 cm	Pale brown (10 YR 6/3) clay loam	Glass
Shovel Test 3		
0-20 cm	Strong brown (7.5 YR 5/6) laminated clay	
Shovel Test 4		
0-20 cm	Dark brown (10 YR 3/3) silty clay loam	

Augering: 41DN91

Provenience	Matrix	Artifacts
Auger Hole 1 (Cellar)		
0-20 cm	Dark brown (10 YR 3/3) silty clay loam	Glass, ceramics, brick, metal
20-40 cm	Dark brown (10 YR 3/3) silty clay loam	Glass, ceramics, metal
40-60 cm	Dark brown (10 YR 3/3) silty clay loam	Glass, ceramics, metal
60-80 cm	Mottled brown (10 YR 5/3) silty clay loam	Glass, metal, brick
80-100 cm	Mottled brown (10 YR 5/3) clay loam	Glass, metal, ceramics, brick
Auger Hole 2		
0-20 cm	Brown (10 YR 5/3) sandy loam	Glass, ceramics
20-409 cm	Brown (10 YR 5/3) sandy silt loam	
Auger Hole 3		
0-20 cm	Brown (10 YR 5/3) silty loam	Barbed wire
20-40 cm	Brown (10 YR 5/3) sandy clay loam	
Auger Hole 4		
0-20 cm	Brown (10 YR 5/3) sandy silt loam	Glass, ceramics, button Brick
20-40 cm	Brown (10 YR 5/3) sandy clay loam	
Auger Hole 5		
0-20 cm	Pale brown (10 YR 6/3) sandy clay loam	Ceramics
20-40 cm	Brown sandy (10 YR 5/3) clay loam	
Auger Hole 6		
0-20 cm	Dark brown (10 YR 3/3) clay loam	
20-40 cm	Dark brown (10 YR 3/3) clay loam	
40-60 cm	Dark brown (10 YR 3/3) clay loam	
60-80 cm	Pale brown (10 YR 6/3) clay loam	
80-100 cm	Pale brown (10 YR 6/3) clay	
Auger Hole 7		
0-20 cm	Dark brown (10 YR 3/3) sandy clay loam	Glass, metal Glass
20-409 cm	Dark brown (10 YR 3/3) sandy clay loam	
Auger Hole 8		
0-20 cm	Brown (10 YR 4/3) clay loam	
20-40 cm	Greyish brown (10 YR 5/3) clay	

Test Unit 1: 41DN91

Level	Depth below surface (cm)	Matrix	Artifacts
1	0-10	Dark grey (10 YR 4/1) sandy clay loam	Historic
2	10-20	Dark grey (10 YR 4/1) sandy clay loam	Historic
3	20-30	Very dark greyish brown (10 YR 3/2) clay loam	Historic
4	30-40	Dark greyish brown (10 YR 4/2) clay loam	Historic
5	40-50	Dark greyish brown (10 YR 4/2) clay loam	Historic
6	50-60	Dark greyish brown (10 YR 4/2) clay loam	Historic
7	60-70	Dark greyish brown (10 YR 4/2) clay	Historic
8	70-80	Dark greyish brown (10 YR 4/2) clay mottled with yellow clay	Historic
9	80-90	Dark brown (10 YR 3/3) clay mottled with yellow clay	Historic
10	90-105	Dark greyish brown (10 YR 4/2) clay	Historic

Test Unit 2: 41DN91

Level	Depth below surface (cm)	Matrix	Artifacts
1	0-10	Very dark greyish brown (10 YR 3/2) sandy loam mottled with charcoal and ash	Historic
2	10-20	Dark greyish brown (10 YR 4/2) sandy loam with ash and charcoal mottling	Historic
3	20-30	Dark greyish brown (10 YR 4/2) clay loam	Historic
4	30-40	Dark brown (10 YR 3/3) clay loam	Historic

Test Unit 2: 41DN94

Level	Depth below surface (cm)	Matrix	Artifacts
1	0-10	Dark greyish brown (10 YR 4/2) ash in NE corner	Historic
2	10-20	Dark grey (10 YR 4/1) ashy clay	Historic
3	20-30	Dark grey (10 YR 4/1) ashy clay	Historic
4	30-40	Dark grey (10 YR 4/1) clay	Historic
5	40-50	Very dark greyish brown (10 YR 3/2) clay	Historic
6	50-60	Dark grey (10 YR 4/1) clay	Historic
7	60-70	Dark grey (10 YR 4/1) clay	Historic
8	70-80	Dark grey (10 YR-4/1) clay	Historic
9	80-90	Light brownish grey (10 YR 6/2) clay with ash	Historic
10	90-100	Grey brown (10 YR 5/2) clay	Historic
11	100-110	Dark grey (10 YR 4/1) clay	Historic
12	110-120	Dark greyish brown (10 YR 4/2) mottled clay	Historic
13	120-130	Dark brown (10 YR 3/3) clay	Historic
14	130-140	Mottled greyish brown (10 YR 5/2) clay	Historic

Test Unit 1: 41DN97

Level	Depth below surface (cm)	Matrix	Artifacts
1	0-30	Dark brown (10 YR 4/3) silt loam	Historic
2	30-40	Dark brown (10 YR 4/3) silt loam	Historic
3	40-50	Dark brown (10 YR 4/3) silt loam	Historic
4	50-60	Dark reddish brown (2.5 YR 3/4) clay loam	Historic
5	60-80	On west: brown sandy loam (10 YR 3/3) On east: reddish brown clay (2.5 YR 4/4)	Historic
6	80-100	On west: brown loam (10 YR 3/3) On east: Strong brown (10 YR 5/6) loam with limestone rubble	Historic
7	100-110	On west: sandy clay loam with charcoal On east: limestone rubble	Historic
8	110-120	Limestone caliche	

Test Unit 2: 41DN97

Level	Depth below surface (cm)	Matrix	Artifacts
1	0-20	In pit: dark brown (10 YR 3/3) clay loam Out pit: brownish yellow (10 YR 6/8) clay	Historic
2	20-53	Dark brown (10 YR 3/3) loam with charcoal; ash lines	Historic

Test Unit 1: 41DN110

Level	Depth below surface (cm)	Matrix	Artifacts
1	0-20	Dark reddish brown (5 YR 3/3) clay loam	Historic
2	20-40	Dark reddish brown (5 YR 3/3) clay loam	Historic
3	40-50	Dark reddish brown (5 YR 3/3) clay with charcoal and ash	Historic
4	50-60	Dark reddish brown (5 YR 3/3) mottled clay	Historic
5	60-70	Dark reddish brown (5 YR 3/4) mottled clay	Historic
6	70-90	Dark reddish brown (5 YR 3/3) clay with gravel	Historic
7	90-95	Dark reddish brown (5 YR 3/3) mottled clay with gravel	Historic

Test Unit 1: 41DN111

Level	Depth below surface (cm)	Matrix	Artifacts
1	0-10	Very dark greyish brown (10 YR 3/2) clay loam	Historic
2	10-20	Very dark greyish brown (10 YR 3/2) clay with charcoal and gravel	Historic
3	20-30	Very dark greyish brown (10 YR 3/2) clay with mottling of caliche	Historic
4	30-40	Very dark greyish brown (10 YR 3/2) clay	Historic
5	40-42	Very dark greyish brown (10 YR 3/2) clay	Historic

Test Unit 1: 41DN116

Level	Depth below surface (cm)	Matrix	Artifacts
1	0-30	Dark brown (10 YR 3/3) clay loam	Historic
2	30-40	Dark brown (10 YR 3/3) clay loam	Historic
3	40-50	Dark greyish brown (10 YR 4/2) clay loam	Historic
4	50-60	Dark brown (10 YR 4/3) clay loam	Historic
5	60-80	Dark brown (10 YR 3/3) clay loam	Historic
6	80-87	Dark yellowish brown (10 YR 4/4) sandy loam	Historic
7	87-100	Dark brown (10 YR 4/3) clay loam	Historic
8	100-110	Dark yellowish brown (10 YR 4/4) clay	Historic

Test Unit 1: 41DN194

Level	Depth below surface (cm)	Matrix	Artifacts
1	0-13	Mottled greyish brown ash (10 YR 5/2) on reddish brown clay (5 YR 4/4)	Historic
2	13-20	Mottled strong brown clay (7.5 YR 5/6)	Historic
A.L. 1	20-40	Dense red (2.5 YR 5/6) clay	

A.L. = Auger Level

Test Unit 1: 41DN200

Level	Depth below surface (cm)	Matrix	Artifacts
1	0-10	Dark greyish brown (10 YR 4/2) clay	Historic
2	10-20	Dark greyish brown (10 YR 4/2) loam	Historic
3	20-30	Dark greyish brown (10 YR 4/2) clay with caliche	Historic
4	30-50	Pale brown (10 YR 6/3) clay with caliche	Historic
A.L. 1	50-150	Pale brown (10 YR 6/3) clay with caliche	

A.L. = Auger Level

Test Unit 1: 41DN202

Level	Depth below surface (cm)	Matrix	Artifacts
1	0-20	Dark greyish brown (10 YR 4/2) sandy loam	Historic
2	20-30	Yellowish brown (10 YR 5/4) sandy loam	Historic
3	30-40	Brown (7.5 YR 5/4) loam	Historic